S. Hrg. 102–113, Pt. 2

DEPARTMENTS OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT AND INDEPENDENT AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1992

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

UNITED STATES SENATE

ONE HUNDRED SECOND CONGRESS

FIRST SESSION

ON

H.R. 2519

AN ACT MAKING APPROPRIATIONS FOR THE DEPARTMENTS OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT, AND FOR SUNDRY INDEPENDENT AGENCIES, BOARDS, COMMISSIONS, CORPORATIONS, AND OFFICES FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 1992, AND FOR OTHER PURPOSES

PART 2 (Pages 1–587)

Department of Housing and Urban Development
Department of Veterans Affairs
National Aeronautics and Space Administration
National Science Foundation
Office of Science and Technology Policy
Points of Light Foundation
U.S. Court of Veterans Appeals

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DEPARTMENTS OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT AND INDEPENDENT AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1992

WEDNESDAY, APRIL 17, 1991

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 1:30 p.m., in room SD–138, Dirksen Senate Office Building, Hon. Barbara A. Mikulski (chair) presiding.

Present: Senators Mikulski, Leahy, Lautenberg, Kerrey, Garn, and D'Amato.

DEPARTMENT OF VETERANS AFFAIRS

STATEMENT OF EDWARD J. DERWINSKI, SECRETARY

ACCOMPANIED BY:

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- ROBERT L. NEARY, ASSOCIATE DEPUTY ASSISTANT SECRETARY FOR FACILITIES

OPENING STATEMENT OF SENATOR MIKULSKI

Senator MIKULSKI. The subcommittee will come to order.

Today, we are pleased to welcome Secretary Ed Derwinski of the Department of Veterans Affairs and Chief Judge Frank Nebeker on behalf of the Court of Veterans Appeals for their fiscal 1992 budget.

Our ranking minority, Senator Garn, is on the floor with financial institution regulations related to the commodity exchange. He will try to join us, but the subcommittee wishes to note that Senator Garn's absence is because of floor duties related to his ranking minority status on Housing and Banking.

Mr. Secretary, we welcome you and your team. We understand that there has been a Cabinet meeting called by the President today at 2:30 p.m. and, therefore, we thank the Chief Judge for allowing you to go first in your testimony.

The procedure that we will follow is, we will be directing questions at you, but then if there are ongoing questions we understand the need for you to be with the President at the White House and are very happy to cooperate with excusing you at 2:15 p.m. if we have not completed our questions.

We know you have multiple duties and we want you to go over there and talk to the President and say, Mr. President, you did one heck of a job in Desert Storm—thank God for bringing our men and women home with contained casualties, but Mr. President, we have got to meet our commitment to the veterans of other wars, and I was with Senator Mikulski in her Appropriations Committee and she was asking me some tough questions.

So Mr. Secretary, I am going to tell you up front, we are going to go through some tough questions today because we have some very serious concerns about the Department of Veterans' Affairs. I know you have inherited a very tough management responsibility. You know my deep respect for you, so though you are going to take the questions, they are really for your Department and the service it is providing.

First and foremost today on the agenda will be the quality of care issue. From "Prime Time Live," to the inspector general's office, to the General Accounting Office, we are hearing about devastating accounts of the quality of care in VA hospitals. I have taken the opportunity to watch the videotape on "Prime Time," have read the inspector general reports and our GAO reports, and Mr. Secretary, the news is not good.

Your inspector general—and we really thank the inspector general—has looked into the North Chicago Hospital, I know after you received several anonymous letters. We congratulate you on sending out an investigation team and having an open door policy for "Tell it to the Secretary" that enabled those to come to your attention.

We learned that the inspector general found that in 43 out of 140 deaths, there were quality-of-care problems ranging from misdiagnosis, delays, and failure to diagnose, as well as ultimately inappropriate treatment, untimely diagnostic tests, and sometimes even inappropriate surgery.

Mr. Secretary, we are very concerned about North Chicago, but we are concerned not only about North Chicago, because it does not seem to be an isolated incident; it seems to be an example of a larger and more serious problem.

We now, then, turn to your budget request. We are concerned with the budget request because the quality-of-care issue does not seem to be at the top of the agenda, and I know you would agree that an adequate budget is key to quality care. While VA's budget does increase medical care by $1 billion, this represents only a 5 percent increase and the medical inflation rate is 10 percent.

In addition to medical care, we are concerned about VA cemeteries, the final resting place of our American heroes. A sacred place, an honorable place, that needs to be handled accordingly within that framework. We are concerned that we are cutting 33 staff in the cemetery system and providing an increase of less than inflation.

We know that there is an equipment backlog of over $9 million. Many veterans' cemeteries are in very uncared-for conditions. I note the desperate situation particularly in Riverside, CA, where graves have sunk because of the torrential rains. Mr. Secretary, we need to ensure that the burial grounds for our veterans are maintained with dignity.

We are also concerned about the construction program. The major cost overruns continue to occur, even though we say that reforms are being made. The problem with cost overruns is the lack of disciplines in the system, meaning that we do not have the money for the staff and the equipment that we need to run the facilities we are building in the first place, and we need to hear about your activities on that.

We know the Department of VA has a great responsibility, and it has assumed an even greater importance in recent months. It stood ready and able to assist the Department of Defense in caring for wounded soldiers during the gulf crisis. We thank God it was not necessary for VA to assume that role, but we know that you moved Heaven and Earth, guidelines, and bureaucracy to be ready for the casualties. We thank you for that.

We now need that same movement of Heaven and Earth and the movement of the bureaucracy to meet the commitment to the veterans of other wars. Yellow ribbons and speeches are not enough. There needs to be a congressional commitment and an administrative commitment in dealing with these issues.

We welcome you today. One of the aspects I have liked about working with you over the years is, I know you are a straight shooter, and I know of your own commitment to patriotism and performance, and we look forward to hearing your testimony.

[The statement follows:]

STATEMENT OF SENATOR MIKULSKI

The subcommittee will come to order. Today we are pleased to welcome Secretary Ed Derwinski of the Department of Veterans Affairs, and Chief Judge Frank Nebeker on behalf of the Court of Veterans Appeals, on their fiscal year 1992 budget requests.

Mr. Secretary, we welcome you and your team.

Mr. Secretary, I'm going to tell you up front—today's hearing is going to be tough. We've got some very serious concerns about the Department of Veterans Affairs and the services it is providing to those who fought for this country's way of life.

First and foremost on today's agenda is quality of care. From "Prime Time Live" to the inspector general to the General Accounting Office—we are hearing devastating accounts of quality of care problems in VA hospitals.

Most recently, your inspector general looked into the North Chicago Hospital after you received several anonymous letters.

The inspector general found that in 43 out of 140 deaths, there were quality of care problems ranging from misdiagnosis, delays and failure to diagnose, untimely, inappropriate treatment, untimely diagnostic tests, and possibly inappropriate surgery.

Mr. Secretary, this is a travesty. And we wonder whether North Chicago is not a symptom of a much larger, and more serious, problem.

Unfortunately, your budget request does not seem to indicate that quality of care is at the top of your agenda.

I think you would agree that an adequate budget is key to quality care. And while VA's budget does increase medical care by almost $1 billion in medical care, this represents only a 5-percent increase—compared to a medical inflation rate of about 10 percent.

Mr. Secretary, we are also very concerned with VA's cemetery program.

You are actually cutting 33 staff in the cemetery system and providing an increase of less than inflation, despite an equipment backlog of $9 million. Many veterans' cemeteries are in disgraceful condition—I note the desperate situation in Riverside, CA, where graves sunk due to torrential rains.

Mr. Secretary, we need to ensure that the burial grounds for our veterans are maintained in a dignified manner befitting those who risked their lives for our country.

We also want to look at the construction program. We continue to see major cost overruns despite the Department's claims that reforms are being made. The problems might not have been created on your watch, Mr. Secretary, but the buck has to stop somewhere.

Mr. Secretary, the Department of Veterans Affairs has a great responsibility. It assumed an ever greater importance in recent months. It stood ready and able to assist the Department of Defense in caring for wounded soldiers during the gulf crisis. We thank God that it wasn't necessary for VA to assume that role.

Now it is time for VA to care for those veterans who served our Nation in the sands of Saudia Arabia and Kuwait. We want to be sure that those veterans get the highest quality care and services in a timely manner, but without compromising the services VA provides to our veterans of earlier conflicts.

It is our responsibility as a democratic society to say thanks to the heroes that served our country, but providing them with the benefits and care they have earned and have been promised. So we want to look at how VA's fiscal year 1992 budget will accomplish this mandate.

Mr. Secretary, after my colleagues have completed any opening remarks they may have, you may proceed and then we will turn to questions.

Senator **MIKULSKI**. We want to acknowledge, now, that Senator Patrick Leahy has arrived, who himself is managing the legislation on the floor.

Senator Leahy, do you have an opening statement?

Senator **LEAHY**. A fairly short one, Madam Chair, if I might. I apologize for just coming in and out so quickly. I am managing the CFTC bill on the floor and I am not going to be able to stay, but I had a matter of some concern. I will also submit questions for the record.

MOBILE CLINICS

The Secretary knows that I yield to nobody in both my affection for him and my admiration of him, but I have to tell you I am very, very concerned about one decision the VA made last fall. The VA selected the sites for six rural mobile clinics. Mr. Secretary, you and I have gone through this at some length. You know that I strongly support a clinic for Vermont. I told the people in Vermont, if you want to compete for it you better show a better need than others. They did.

At the request of the Department I did not move to earmark a VA rural clinic for Vermont. I believe I could have. In fact, I am absolutely convinced that I had the votes to do so, and I am absolutely convinced that in the conference we would have earmarked one. But I did not do that, because I knew that the Vermont proposal had a very high rating. Based on its merits and with five locations, they were ahead of other proposals and would have made the cut.

But when the selection was made, even though Vermont did better than some of those picked, it was not selected as one of the sites for these important health clinics. I was very, very concerned. We had the need, we had the proposal, we had an estimate for

3,000 visits. It appeared to me to be pure politics that Vermont was not selected.

The Vermont clinic would go into northern Vermont, a region that is not linked through interstate highways. In the middle of winter, you can have 12 inches of snow overnight. Now, even in a State like Vermont that is not deterred by snowfalls, 12 inches of snow is a lot, and I defy anybody to go back and forth over Route 105 or any other small routes in the middle of winter and get to a hospital for an appointment.

I would also point out that the clinic would serve towns of 100 people, 200 people, 300 people. They do not have medical facilities of their own, but they have an aging veterans population, a veterans population very much in need.

I believe that Vermont is entitled to a clinic, if anybody is. We have proven the need. Now, I will do one of two things. I will either move to earmark these funds specifically for Vermont, or I will have to have a specific commitment from you that we will have one.

I apologize, Mr. Secretary, for bursting in to speak on this. However, you and I have discussed this before. As I said, you and I have been friends for a long time, dating back to your service in the House. I have a great deal of admiration for you and the agency you head, as well as the people who work for you, but I have to tell you, if I felt I was asking for something where Vermont was somehow out of line, I would not do it, but Vermont has proven its need.

We have a real need. We have proven our need is greater than some sites who were awarded clinics. We have veterans in Vermont who are suffering. I find myself chairing the Foreign Operations Subcommittee, for example, with everybody testifying that we have got to have foreign aid for this country, we have got to have foreign aid for that country, we have got to help out these people on this side of the world, we have got to help out people on that side of the world. We have some people right here in our own country who need the help, and I intend to have them get it. [Applause.]

Secretary DERWINSKI. Senator, first let me say, if our roles were reversed and I were in your shoes and you were sitting here in this seat, I would have been tougher on you than you have been on me. I take full responsibility for our lack of action specifically on the White River Junction proposal.

This is not an apology or an attempt to change your mind, I just want you to know how I thought through it. First, as we read the original law, we were told there was a specific mandate for Arizona, and that was our first allocation, in part, because using the mobile van in Arizona we are able to also treat the Navaho Indian population, which meets another condition that Congress had attached to attempt to serve the native Americans.

Then, as we understood it, we were to place one further van in each of our regions—the east, west, south, and central. In the east region the selection was Togus, to serve Maine. Your language—which I believe you added to the appropriation bill, was that we were directed to attach high priority to this program, and as a result we were to provide $700,000 for one additional mobile site, or van.

But that did not come with the additional funding. We had a number of those language requirements in both the House and the Senate, and I took the position that if we did not have the funding we would not move, and I take full responsibility. And, you know, I am everything in this case from stubborn to whatever other term you want to apply to it, but that is the position I took.

The only thing I can tell you that might be of mild pleasure to you, Senator Leahy, is that in 2 weeks I am going to be in White River Junction. I have arranged to speak to the Vermont convention of the DAV, and in the process I am going to be visiting White River Junction and tour. To the degree the drive from White River up to Burlington may give me an opportunity, I will drive off the main roads and take a good look at the situation, and I would like to get in touch with you after that.

I understand your position. I do not quarrel with it from your vantage point, but I just took the position that with the limited funds we have and the dictate to place one of these vans in each of our regions, plus the specific mandate for Arizona—and those were the five originally authorized units.

Senator LEAHY. Mr. Secretary, I have gone into the Chair's time, and there is, as you know, nobody in this body who has fought harder for veterans than Senator Mikulski, and I would yield to her.

But let me do this: as soon as you get back from Vermont—and I will have people, my staff will be there, too, at that visit in Vermont. As soon as you get back, let us, you and I, just meet quietly and go over this. We will do it without the cameras and everything else. Let's you and I just sit down and talk about this and I will listen as objectively as I can to what you have seen, and I am sure you will to me. Have a safe trip there in Vermont. But when you get back, let us see if we can work this thing out.

Secretary DERWINSKI. Fine. I think I will be there on the—I think it is May 4.

Senator LEAHY. Well, you will have, I know, quite a welcoming from both Senator Jeffords' office and my office.

Thank you.

Secretary DERWINSKI. Thank you.

Senator MIKULSKI. Mr. Secretary, it is now 1:45 p.m., and I know that you are going to leave in one-half hour for you to be with the President. I am going to suggest that you condense your statement and by unanimous consent it will be in the record.

Why do you not give us the top three points that you want to make, and I would like to then move into questions with myself and my colleagues, Senator Kerrey of Nebraska and Senator D'Amato?

INTRODUCTION OF ASSOCIATES

Secretary DERWINSKI. I will be very brief. I will be under the House 5-minute rule.

First, may I introduce, just to be sure everyone is known to everyone, our Deputy Secretary, Tony Principi; Mrs. Webb, who is the Director of our National Cemetery System; D'Wayne Gray, who is the Chief Benefits Director; and Dr. Jim Holsinger, the Chief Medical Director. We have behind me here Tony McCann, our Assistant

Secretary for Finance and Planning; David Lewis, the Assistant Secretary for Facilities; and Raoul Carroll, our General Counsel.

STATEMENT SUMMARY

Let me go directly to the two points you have mentioned in your commentary, Madam Chair. One is that we appreciate the fact that—frankly, we could always use more money. We did the best we could in fighting with OMB and the $1 billion increase is as realistic as we could have wrung out of them.

In the same spirit, may I thank you for your work in giving us an additional $25 million supplemental over and above what we had requested. We were under strict guidelines to request in the supplemental those funds we had actually incurred in expenses for Desert Storm, and at that time the figure was approximately $12 million. You were effective enough to give us an additional $25 million, which we obviously could use, and will use.

The other point, if you will permit, and I will skip the rest of this and leave it for the record—I would like to move directly to the questions you asked about quality of medical care, as that is of special concern to us. We were as upset and disturbed as anyone over the recent inspector general report on our facility in North Chicago. As a result of that we have prepared and are processing a special checklist by which Dr. Holsinger and his staff will work with all our facility directors to see that they will be able to certify directly to the Chief Medical Director that their hospital is meeting the standards that we wish set, and this is a direct result of our followup from the inspector general report.

All of the inspector general recommendations will be met. Most have already been implemented. The remaining ones will be implemented over the next year. Our surgical unit there is under—I use the term permanent probation, if that is not a grammatical misstatement—to see to it that the reviews are constant. The final decision on maintaining surgery will be made after a full evaluation by the Chief Medical Director.

In addition to that, we will also, in the process, review the entire relationship with the medical school we are affiliated with there. There will be a very, very clear-cut and complete review and revision of the medical mission of that facility.

We are using the inspector general report on North Chicago as a specific tool to energize and improve our entire system. The report reminds us what happens when review processes are not backed up by sufficient followup capacity. That brings me to an issue we need your assistance with.

Declining appropriations for medical administration and miscellaneous operating expenses [MAMOE] over the last several years have been one factor in the weakening of VA's medical quality assurance. A certain amount of streamlining may have been warranted in the past and cuts in MAMOE did force greater efficiency. However, we have now reached the point where the reductions—some 300 positions below where we were only a few years ago—are hampering important central office oversight functions. We've seen it in prosthetics programs and we've seen it in quality assurance in general. The first step toward enhanced oversight and accountability is the simple checklist of quality indicators we referred to earlier. Refinements to that system and to all our quality review mechanisms will be ongoing for some time to come. These activities require staff.

We seek your help in obtaining the flexibility we need to augment MAMOE funding. We are not asking to be restored to the 800 FTE of the past. An additional 80 positions is warranted and we are convinced it would be altogether appropriate to shift medical care funds to this purpose since they would be used for quality assurance, and not general administrative overhead. We recognize this represents a significant adjustment and we are prepared to show what these new positions would be doing for us. There can be no doubt the need is there.

Dr. Holsinger is prepared to address these issues and I am prepared to answer any further questions you might have specifically on the North Chicago facility.

I will yield back my time.

[The statement follows:]

STATEMENT OF EDWARD J. DERWINSKI

Madam Chair and members of the committee, I am delighted to be here today to discuss the President's 1992 budget proposal for the Department of Veterans Affairs.

Our appropriation request for fiscal year 1992 is $32.3 billion. Indeed, this is the largest budget we have ever proposed. I am pleased with this level and believe it well represents our commitment and dedication to our nation's veterans.

Before I get to the specifics of our proposal, I want to address briefly the effects of Operation Desert Storm. Over the past six months, VA maintained constant contact with the Department of Defense to ensure our readiness when called upon. We prepared tirelessly for our role as medical back-up to DOD, a contingency plan which ultimately did not have to be activated. We all are thankful that there were so few casualties. In this regard we are better off for having gone through this operation. As a result, we were able to conduct a thorough and intense review of our hospital system in terms of bed availability and the ability to meet the VA's contingency support responsibilities. However, the veterans who will soon be returning from the Gulf will have needs for other VA services. The supplemental will provide resources to meet the benefit demands of these veterans.

Of the quarter million or so reservists called to active duty, a majority were nonveterans when the deployment began. In addition, 50,000 to 75,000 of those who were already on active duty are expected to be discharged soon after their return. The coming surge in discharges will produce an associated surge in demand for VA benefits services for a period of time. Our big job now is to make sure we can deliver existing benefits and services quickly and effectively over the next weeks and months. The supplemental will enable us to continue adding counselors and adjudicators to provide housing assistance and assist veterans in processing their claims and applications particularly for compensation and education benefits. The supplemental will provide adequate funds to fully implement the Transition Assistance Program (TAP) and Disabled Transition Assistance Program. Many will remember that VA could not keep up with the surge of veterans after Vietnam. We intend to ensure that does not happen this time.

The VA is planning to provide spending plans for the allocation of the supplemental for the medical care and benefits delivery programs to cover the costs that have been or will be incurred by VA because of events in the Persian Gulf.

Given the dedication and sacrifice that our service men and women demonstrate, it is clear that our veterans deserve the very best this nation can provide. In 1992 and beyond we plan to meet the ever changing needs of our veteran population.

The medical care budget represents an increase in funding by almost a billion dollars. This is a funding level that enables us to make improvements in patient care environments, aging veterans programs, and drug abuse treatment programs. We are adding medical personnel to facilitate these improvements. We also seek to enhance access to health care by pursuing more DOD sharing agreements.

Our construction programs directly reflect the Department's goals for patient environment improvements, as well as the need to address the seismically damaged facilities at VAMC Palo Alto.

Our older veterans have more illnesses requiring medical care. To fulfill the needs of our aging veteran population, we are focusing on increasing the number of long-term care beds. At the same time, however, we are not compromising other modalities of care. Our acute care, outpatient, and extended care systems remain strong.

Quality care for our veterans has always been a priority at VA. We are taking positive steps to guarantee that the VA system is staffed with competent and skilled professional medical personnel. To meet quality care requirements, we will establish a new external peer review system, and continue to assure proper licensing and credentialing information on VA's physicians. We are requesting $100 million and 1,519 personnel to meet the recent nationwide standards to restrict resident work hours, improve their supervision, and hire additional staff to relieve resident workloads. We also propose to improve recruitment and retention of health care personnel with pay reform for doctors and dentists. Enactment of this proposal would require an additional $41 million.

We seek to enhance our program management. The Veterans Benefits Administration is implementing several management improvements with the ultimate goals of being more responsive to the needs of our clients, and improving accuracy and timeliness in the way VA conducts business. The VA is also pursuing total asset management with public/private ventures such as child care programs, office/research space, and nursing homes.

I believe, Madam Chair, that if we keep our house in order, our utility to veterans is all that much better. Through on-site financial reviews and financial statement audits we will promote refinement and improvement in the management of our resources. Further, to better manage our internal affairs and to improve our accountability, we are implementing a new Financial Management System.

We are again proposing to index the compensation cost-of living allowance to the annual change in the Consumer Price Index to assure that every veteran and survivor receive their COLAs on time.

We plan to standardize Dependency and Indemnity Compensation (DIC) to allow for more equitable DIC benefits among survivors of veterans. This will not affect those already on the rolls above the standardized rate (E–6 rate) These survivors will continue to receive payments at their current levels.

The new Credit Reform law affects the operation of our housing programs, but our essential mission to facilitate the extension of mortgage credit to qualifying veterans remains unchanged.

Before Credit Reform, housing programs operated on a pay as you go basis with appropriations being requested to meet program expenses. Through a new subsidy calculation, estimates can be made to meet anticipated costs of foreclosures at the time of origination. This subsidy ensures that cash flow remains sufficient to hopefully preclude the need for appropriations.

To further reduce program costs, we are requesting legislation to make permanent the Guaranty and Indemnity fee structure. As you know, this fee structure was included in the 1990 reconciliation legislation but is only effective until September 30, 1991.

Finally, we are proposing to improve the formula used to determine whether to acquire foreclosed property. With this action, we foresee a reduction in default losses and more cost-effective property acquisitions.

I will now summarize the 1992 budget request for the VA; highlighting the budget issues for each of our major programs.

BENEFIT PROGRAMS

Compensation.—The 1992 budget request is $11.2 billion to provide compensation payments to over two million veterans and over three hundred thousand survivors. On February 22, 1991, the Administration transmitted a 1991 supplemental providing $303.1 million for the recently enacted 5.4 percent compensation cost-of-living adjustment (COLA) increase, effective January 1, 1991. The supplemental request included a budget amendment for an additional $632.2 million for the compensation COLA for fiscal year 1992.

Legislation is again proposed to index compensation benefits to the annual change in the Consumer price Index. The request proposes the first such "automatic" COLA to be effective December 1, 1991 at 5.2 percent, costing $513.6 million.

Public Law 101–508 places a limitation on the estates of incompetent veterans with no dependents. Benefit payments are discontinued when the assets of a veteran reaches $25,000. This ensures that remote heirs of incompetent veterans do not inherit large sums of a veteran's benefits. This provision of the law expires October 1, 1992. The provision is proposed to be made permanent.

Pensions.—The 1992 budget request is $3.9 billion for pensions. This amount will provide payments to nearly one million eligible recipients. The 1992 caseload estimate is fifty-thousand below the 1991 estimate. This reduction reflects a declining trend in this program, which is in part due to increased mortality among eligible recipients exceeding new accessions to the rolls. Although it is anticipated that the number of veterans age sixty-five and older will increase during the 1990s, improvements in retirement benefits and income sources are expected to result in a continued decline in pension caseload.

This budget request includes the full-year impact of the 5.4 percent cost-of-living increase received by the Improved Law pension recipients in December 1990, as well as an estimated 5.2 percent cost-of-living adjustment to be effective in December 1991. By law, the cost-of-living adjustments to eligible pension recipients are based upon the actual change in the Consumer Price Index.

Legislation is proposed to extend existing law that limits monthly VA pensions to $90 for any veteran without a spouse or child who is receiving Medicaid coverage and who is in a Medicaid approved nursing home. If extended in 1992, savings are anticipated to be $109 million in fiscal year 1993.

The current ninety day service requirement (at least one day served during a wartime period) to receive pensions is proposed to increase to one-hundred and eighty days, all of which must be served during wartime. This would make pension eligibility consistent with other VA benefit programs. Fiscal year 1992 savings is expected to be $1.6 million.

Legislation is proposed to extend current law and make permanent the VA access to Internal Revenue Service information for the purpose of verifying the income of pension beneficiaries. This proposal is expected to save $170.9 million in fiscal year 1993.

Burial benefits and miscellaneous assistance.—For fiscal year 1992, $130.7 million is requested for the Burial Benefits and Miscellaneous Assistance program. This request provides an estimated 112,000 burial allowances to reimburse in part the burial and funeral expenses of eligible deceased veterans. A total of 122,800 burial plot allowances are requested for eligible veterans who are not buried in a national cemetery or other cemeteries under the jurisdiction of the United States. Also requested are funds for 393,700 headstones and markers, 410,500 flags, and 48,200 graveliners.

Readjustment benefits.—A total of $635.4 million is requested for the Readjustment Benefits program. This funding level provides basic benefits to over two-hundred thousand veterans and servicepersons training under the Montgomery G.I. Bill program. The basic benefits for veterans and servicepersons are enhanced with a $155 million transfer, primarily from the Department of Defense, and is used to finance benefits to veterans, reservists and servicepersons. Education benefits under the Dependents' Educational Assistance Program are also provided to thirty-eight thousand dependents. Vocational rehabilitation is provided to over twenty-seven thousand disabled veterans.

The trainee level under the Dependents' Educational Assistance Program is estimated to be two thousand fewer in 1992 than in 1991 as more dependents complete their education. The trainee level under the new program is expected to be fifty-nine thousand higher and will continue to increase as more individuals become eligible for benefits.

Legislation is proposed to limit eligibility for Chapter 31 veterans under the Vocational Rehabilitation program. Under the proposal, benefits will only be provided to veterans rated 30 percent or higher, which is expected to save $11.2 million in 1992.

Legislation is also being proposed to limit eligibility for Survivors' and Dependents' Educational Assistance to either natural or adopted children. It is estimated that savings of $1.1 million would be realized in 1992.

Guaranty and indemnity fund.—Since January 1, 1990, the Guaranty and Indemnity Fund (GIF) has originated all home loans in the housing program, with the exception of manufactured home loans which are still originated by Loan Guaranty. No appropriations were needed for this fund in fiscal year 1991. For fiscal year 1992, a total of $288.8 million in budget authority is requested for GIF, of which $74.2 million is for the liquidating account and $214.6 million is for subsidy appropriations and administrative expenses. Included in this request is $192.8 million in savings resulting from the proposed legislation outlined below. Also, in 1992, the GIF expects to originate 160,000 loans for $15.0 billion.

Under The Federal Credit Reform Act of 1990, the accounting structure for the housing program was changed to better reflect the up front subsidy in a government loan. At the same time, no change was made to the essential mission of the housing program which is to facilitate the extension of mortgage credit to qualified veterans.

Legislation is requested to make permanent the increase in the funding fee structure established under the "Omnibus Budget Reconciliation Act of 1990". Otherwise, this fee structure would expire September 30, 1991. Savings of $88.3 million in 1992, and $382.0 million through 1996 are expected.

Legislation is requested to allow VA to include losses from resale of properties in the net value calculation when determining whether or not the loan holder can convey property to the Government. This legislation also exempts VA loans held in GNMA loan pools from the no-bid scenario. Savings of $45.5 million in 1992, and $217.0 million through 1996 are expected.

Legislation is proposed to require a 2.5 percent fee and a 10 percent downpayment for multiple use of the loan guaranty benefit. Under current law veterans can reuse this benefit provided their debt has been paid in full. This multiple use aspect ignores the fact that additional use carries nearly the same default risk. Active duty personnel will be exempt from this requirement. Savings of $59.0 million in 1992, and $261.0 million through 1996 are expected.

Loan guaranty revolving fund.—For fiscal year 1992, a total of $486.5 million in budget authority is requested for the Loan Guaranty Revolving Fund, of which $277.2 million is for the liquidating account, and $209.3 million is for subsidy appropriations and administrative expenses. Included in this request is $100 million in savings resulting from the proposed legislation outlined below. This fund continues to provide operational support for loans closed prior to January 1, 1990, as well as guarantees on manufactured home loans.

Legislation is proposed to allow the net value calculation and GNMA exemption under the Guaranty and Indemnity Fund to also apply in computations pertinent to this fund. Expected savings are $101.4 million in 1992, and $243.3 million through 1996.

Legislation is proposed to merge the Direct Loan Fund with the Loan Guaranty Fund. Because of the low level of activity in the Direct Loan Fund, it is no longer financially prudent to have a separate fund for direct loans. Savings in "outlays" are expected to be $5.8 million in 1992, and $17.0 million through 1996.

Finally, legislation is proposed to increase the funding fee on manufactured home loans from 1 to 2 percent and require a 10 percent downpayment.

MEDICAL PROGRAMS

Medical care.—The fiscal year 1992 budget request of $13.3 billion for direct medical care is approximately $1.0 billion above the 1991 level. These resources add 1,476 VA medical personnel, which increases the average employment level to 196,114.

The resources requested will allow VA to provide health care to the projected number of eligible veterans expected to apply for care on a system-wide basis. This budget request supports care for approximately 1.2 million inpatients treated and 23.6 million outpatient visits.

The budget request supports quality health care by funding physician and dentist special pay at $41.5 million, and by providing funds for additional staff to relieve resident workloads. The budget also provides resources to curtail the effects of inflation and fund staffing requirements associated with the opening of new facilities. Further, the budget proposes to reform beneficiary travel for a savings of $62.9 million.

Funding is proposed for one additional Geriatric Research Education and Clinical Center bringing the total number of units to 16. Drug abuse treatment increases by $15 million and 195 FTE. Resources of $6.6 million and 135 FTE are requested to bring the conversion to automated unit dose to 83 percent of all VA beds.

To meet the demands of the aging veteran population, the budget requests funding for 1,863 new and converted nursing home care beds to become operational in fiscal year 1992. Also requested is funding for an additional 1,808 new and converted nursing home care beds for future operation.

Other significant legislative proposals affecting hospital care are to permanently continue the copayments authorize by the "Omnibus Budget Reconciliation Act of 1990," and to authorize means tested copayments from service-connected veterans rated 40 percent or less disabled for non-service-connected conditions. Collections anticipated as result of these proposals are estimated to be $125 million.

Medical care cost recovery.—For fiscal year 1992, a total of $60 million and 1,578 FTE are proposed to process all billings and collections related to the medical treatment of veterans. This includes processing billings and collections for third party insurance, copayments and prescription fees. The return on this investment is expected to be $574 million in fiscal year 1992.

Medical and prosthetic research.—The 1992 budget request for Medical and Prosthetic Research is $216.8 million and 3,916 FTEE. This funding level is unchanged from 1991. The overall policy governing the President's goal of the fiscal year 1992 budget is to meet the legal requirements for deficit reduction established by the 1990 budget reconciliation legislation. As a result, only a few of our highest priority program increases can be requested. Although medical research is an important priority, increases for direct medical care for veterans take precedence.

Medical administration and miscellaneous operating expenses [MAMOE].—The 1992 request for MAMOE is $40.5 million and 521 FTEE, reflecting a decrease of $955 thousand and 7 FTEE from the 1991 appropriation level. After adjusting the 1991 level for the nonrecurring needs of the Commission on the Future Structure of Veterans Health Care, the Medical Administration request for 1992 reflects an increase of $1.9 million above the 1991 level.

Health Professional Scholarship Program.—The 1992 appropriation request is $10.1 million, the same level as 1991. Prior to 1991, this program was part of MAMOE.

Grants for construction of State extended care facilities.—The 1992 budget request of $85 million is an increase of $15 million over the 1991 level. This funding will continue VA's policy of providing additional VA-sponsored nursing home beds through less costly State programs. These resources will provide 926 additional nursing home beds and 250 domiciliary beds.

GENERAL OPERATING EXPENSES

A total of $847.2 million is requested for the General Operating Expenses (GOE) appropriation in 1992. This funding level, together with the $128.2 million of administrative costs associated with VA's credit programs that will now be funded in the entitlement accounts per Credit Reform provisions, will provide $975.4 million for operations under the GOE account. This funding level is $73 million or 8.1 percent above the 1991 funding level. Requested resources will support an average employment of 17,321.

Veterans Benefits Administration.—The 1992 budget request for the Veterans Benefits Administration (VBA) is $572.6 million with an average employment level of 13,140. This request, combined with the $128.2 million, associated with Credit Reform and funded in the entitlement accounts, is $84 million above the 1991 level and average employment increases by 33.

Reflected in VBA's request is $27.6 million associated with the transfer of 356 FTEE from the General Administration account to VBA. This transfer effects the realignment of data processing centers so that management for day-to-day operations of the computer centers will be under the responsible program area.

The budget request also provides for the implementation of certain cost reduction measures mandated by the "Omnibus Budget Reconciliation Act of 1990". VBA administration expenses will be reimbursed from the Compensation and Pensions appropriation for costs estimated at $9.7 million in 1992 for this implementation.

The 1992 request included $42.0 million for the first stage of VBA's modernization of its Benefits Delivery Network. This stage will enable VBA to produce the necessary equipment and services to establish a more modern processing environment within the regional offices. This effort will result in long-term efficiencies for VBA and enhance the quality and timeliness of claims processing and benefits delivery to the veteran population.

To add to the modernization effort, VBA will continue to expand training at the adjudication academy. The academy will emphasize higher quality work and enhanced timeliness and will expand to include training for rating specialists and senior adjudicators as well as entry level adjudicators.

Efforts will continue to be concentrated on improved servicing of delinquent GI and portfolio loans, as well as monitoring lenders through the Lender Monitoring Unit. During 1992 VBA plans to add 10 FTEE to this unit to expand the scope of reviews to include lender servicing activities, and implement a loan default prediction model which will assist VA in identifying potential high loan losses.

National cemetery system.—The 1992 budget request for the National Cemetery System of $57 million and 1200 FTEE is $3.5 million above and 37 FTEE below the 1991 level. The budget request provides resources for the interment of 64,000 veterans and their dependents and the maintenance of over 1.9 million gravesite and 5,127 developed acres. A funding level of $5.1 million is also requested for the continuation of the state cemetery grant program in 1992.

General administration.—The General Administration 1992 request of $217.6 million and 2,981 FTEE is a $14.7 million and 527 FTEE decrease below the 1991 level. Encompassed in this reduction is the transfer of 356 FTEE and $27.6 million to VBA for the realignment of data processing centers. Additionally, the General Administration activity includes $1.6 million for a Survey of Veterans (SOV IV) in addition to funding studies related to the 1990 Census. This initiative was deferred from 1991 due to funding constraints.

Office of the General Counsel.—The Office of the General Counsel continues to dedicate an increasing level of resources to support additional legal representation requirements resulting from Judicial Review as well as expanding efforts in the area of medical care cost recovery.

Financial management system.—The budget request is $10.2 million for the continued development of a modern, integrated Financial Management System (FMS). The Administration considers replacement of obsolescent, inadequate financial networks as a high priority.

Office of Inspector General.—The Office of Inspector General requests nearly $30 million and 417 FTEE in 1992. This is a $5 million (20 percent) and [illegible] FTEE increase over 1991 resource levels. Additional funding will provide for audited financial statements and continue to place high priority on monitoring and evaluating VA's medical care quality assurance programs.

CONSTRUCTION PROGRAMS

A total of $654.2 million is requested in budget authority for all construction activities at VA facilities in fiscal year 1992. The budget request enhances our priorities of improving patient care environments, increasing funding for long-term care, as well as correcting deficiencies in existing facilities. A substantial portion of the total, $253.8 million, is requested for essential patient care environment improvement projects.

Major construction.—The major construction budget request is $450.0 million, which includes construction activities at medical centers, regional offices and national cemeteries.

The budget request provides funding for seismic corrections at VAMC Palo Alto as a result of the damage caused by the October 1989 Loma Prieta earthquake. A total of $40.0 million is requested for Phase I, to build the steel structure for the new 250-bed acute care hospital, at Palo Alto (Palo Alto Division), CA. Further, $3.5 million is proposed for the construction design of five seismically sound therapeutic units at the Palo Alto (Menlo Park Division) Medical Center, CA.

Significant new patient environment improvement projects include: $45.8 million for a geropsychiatric facility at Marion, IN; $39.0 million for a psychiatric and outpatient clinic at Northport, NY; and $41.6 million for a psychiatric building at Tuscaloosa, AL.

For primary modernization and replacement projects, $60.9 million is requested for phase II of the North Chicago VA medical center, and $6.3 million is proposed for the design of a clinical addition and parking garage at Tampa, FL.

Funding to construct a $44.2 million ambulatory care outpatient addition in Brooklyn (Brooklyn Division), NY, is requested, as well as funding to construct a new $30.8 million spinal cord injury center and energy plant at Dallas, TX. A total of $11.5 million is requested for nursing home care renovation for 120 new beds in Salisbury, NC, and $14.8 million is proposed for a domiciliary replacement at Bonham, TX.

A total of $13.7 million is requested to expand the Riverside National Cemetery, CA, to allow it to remain open for at least 10 more years.

Funds totalling $43.3 million are requested for the regional office program for improved operating economies and services to veterans. At two locations, Houston, TX, and St. Petersburg, FL, regional offices will be relocated onto medical center grounds.

Environmental safety concerns are targeted in the budget where $7.2 million is sought to remove asbestos in Department-owned buildings, and $2.0 million is requested for the cleanup of hazardous waste.

Minor construction.—The request for the minor construction program is $195.7 million, which is an approximately 50 percent increase over 1991. With attention to improving patient environment and long-term care, this level of funding for this appropriation is considered essential. One of our highest priorities was achieved with a funding request of $19.0 million for minor construction nursing home care, which is a significant increase over the fiscal year 1991 level of $1.5 million. Minor construction includes a General Administration limitation of $46.2 million.

CLOSING

Madam Chair, in closing, we are committed to the accomplishment of the VA's mission to provide veterans the care, support and recognition they have earned in service to this Nation. Our budget request reflects this commitment. This concludes my introductory statement. My staff and I will be pleased to discuss the details of this request and answer your questions and those of the Committee Members.

QUALITY OF CARE

Senator MIKULSKI. Perfect. Well, Mr. Secretary, the steps that you are taking in terms of North Chicago, in which it is anticipated that at least six patients died, are well-taken steps, but there is a pattern that we are concerned about.

What the tape shows on "Prime Time" and some others, as well as the inspector general report and the GAO report, and also what people involved in veterans' service organizations talk about, is the poor patient care leading to this, the medical care budget that is below the rate of inflation, the closing of VA beds due to the lack of nurses—there seems to be a problem of care directly related to the number of nurses and the training of the nurses and the supervision of the nurses.

There is an issue related to proper credentials for physicians, that physicians themselves in VA hospitals do not have the same accountability that exists in private-sector hospitals, and there is the question of certification.

Your own Department of Veterans Affairs came in and wanted an exemption from the clinical laboratory regulations for which there will now be the new standards. The VA solution is to get a contractor to review on paper quality assurance in VA hospitals. We specifically, last year, talked about quality assurance.

So it is not just one hospital—it is Cleveland, it is Boston, it is Wisconsin, it is Albuquerque—where a veteran was mistakenly injected with AIDS-contaminated blood, it is the hospital where a patient was given massive steroids to cure an intestinal disease which ate her bones away and is crippled, and it goes on.

So it is nurses, doctors, the administrators wanting to cope with this, so the question becomes, what do we need to do to end the pattern here in terms of poor care? The promise made was not only that veterans would have access to health care, but it would be health care with the parity of any other in the private sector hospital, and we are now talking about facilities that have all the characteristics of Romania.

Secretary DERWINSKI. I respectfully have to disagree, Madam Chair, to this extent, that in the last year figures are available, we served 3 million veterans with 23 million visits in outpatient settings and more than 1 million inpatient episodes.

In each case, there would be multiple surgical-medical nursing services rendered. Add it all up, and it is a staggering figure of service across the country. While we do have individual entities that may have failed to meet our standards, or others for that matter, by and large the VA system is a good one. If it was truly bad we would have had by now some sort of a huge outcry against it. We do not have that.

I will give you one example, and I can only give you my personal experience. I travel around our hospitals. I have been to approximately one-half of them, and whenever I call, I sit down with representatives of the veterans' organizations. I sit down with them privately, without the medical director or any staff of the facility being present, and I ask them pointedly, what is the medical service like here? Are you treated well? Do you have access to the director? What are your concerns?

I have yet, in 2 years, to hear in those surroundings one, what I would call a major charge of poor medical care. The usual complaints I get are the fact that too often every time the veteran comes in he or she is looked at by a different doctor. Or, frankly, another very standard complaint is, why do the doctors not speak English, which is a reference to the number of foreign-trained doctors we have in our service. The other complaint is over pharmacy, over the delay in getting prescriptions or the delay in being mailed prescriptions.

That is the basic litany of complaints I receive. When I press them—I ask, is there any patient abuse here, any special problems?—without exception they say "No."

I hate to put it in these terms, but I have found my veteran friends a lot like the public attitude toward Congress, where many people will say the Congress is a terrible institution, but my Senator or Congressman is a great person. The veterans will say, well, the VA is not doing a good job, but I like Bay Pines, or I like Baltimore, or I am happy with Martinsburg. That is the pattern of communication I have received, madam.

GAO REPORTS

Senator **Mikulski**. Well, you know that you make visits to the hospitals, and we know that some of those visits are unannounced, but here is what the GAO tells us. This is not Barb Mikulski or a whistle blower or a hidden TV camera.

In the past several years, VA has closed over 3,200 beds due to the shortage of nurses. GAO found in 1985, and again in 1989, that the VA does not adequately check its physicians' credentials. The inspector's general semiannual report just this October found this was still a problem. The inspector general found that doctors' credentials were not considered during the appointment process and that privileges were not updated on a regular basis.

We asked last year that quality assurance be consolidated at all levels of VA, that we develop a committee to coordinate the quality assurance. We asked that there be a systematic way of gathering it. Regional offices were scheduled to monitor it and we asked VA to develop procedures for credentialing and privileging all physicians. Where are we on that?

CREDENTIALING AND PRIVILEGING

Secretary **Derwinski**. On the specific point of credentialing and privileging, Dr. Holsinger put into effect a very, very precise program mandating that the hospital directors have full credentialing and privileging records. That has been one of the very positive steps we have taken. In fact, we have emphasized that for the last 2 years.

We discovered you were correct. When we came in—you refer to the 1985 GAO report. We had a policy from central office on credentialing and privileging that frankly must have fallen through the cracks in too many of our facilities.

We reinforced that, updated it, and when Dr. Holsinger came on board in August he emphasized that point. I think we probably—I do not want to exaggerate, but I think we are doing a better job at this point in our credentialing and privileging record maintenance than at any time in our history, but that may be an overstatement and I do not want to be guilty of that.

Jim, do you want to add anything to that specific point?

Dr. HOLSINGER. Yes.

Senator, the Secretary is correct. We are doing a better job now for the first time in history. We have just gone through a whole series of things that began with the GAO report that came out in 1989 and included a full review of all of our credentials and privileges.

In addition, since I have become Chief Medical Director, we put forth a specific, detailed set of guidance and have had training programs across each of our regions to make sure the people involved understand what to do. We believe that we will resolve the credentialing and privileging issue this year.

Senator MIKULSKI. Well, I know that my colleagues have questions to ask of you. They have to be resolved this year, and quite frankly, sir, it is not only what you do at the top, but it is the attitude of the 187 people that run your hospitals.

Some are four star, and some quite frankly would get a C- or a D-minus because of their attitude. I cannot imagine Sister Thomas running Mercy Hospital in Baltimore when someone is to work there or to be privileged there and not asking what the credentials are. It is a basic question.

And if you need to be taught to ask it, then you need to be taught a lot more than only asking questions on credentials. You need to be asked questions about how you run a hospital. [Applause.]

Senator Garn?

Senator GARN. Thank you very much.

SERVICE-CONNECTED/NONSERVICE-CONNECTED CARE

Mr. Secretary, as you know, I asked you some questions last year about the percentage of service-and nonservice-connected disabilities, and this does not make me very popular with veterans, although I spent 24 years of military service myself.

But all these problems must be discussed. It continues to bother me that such a massive number of people are treated at enormous cost when we have big budget deficits, and those who really deserve treatment in many cases, are not getting what they deserve. So it causes problems for the budget as well as for those veterans who are truly in need and deserve our services.

But in response to your question last year, it was around 16 percent or 17 percent, but finding from your actual surveying of the three largest VA inpatient programs indicated that veterans being treated for service-connected conditions accounted for only 10.7 percent.

It means that over 89 percent of the patients treated in these hospitals were treated for conditions that are unrelated to their military service.

I still fail to comprehend that. As I said that, I have been off active duty for 31 years. I am in better health, except for my hair follicles than I was the day that I got off active duty.

I do not feel that I should be owed anything in the way of medical care because the military did not cause me any problems in that way.

So I want to repeat that, it is even more than you thought at the time, at least in these inpatient programs, 89 percent of the treatment is for nonservice-connected disabilities. So if we have problems of overcrowding or not enough nurses or whatever, we have a lot of patients that I do not feel ought to be there because they were there for nonservice-connected disabilities.

I do not know what it is in the outpatient area. Do you plan to do any tracking of this division in outpatient service? This was inpatient only.

Mr. PRINCIPI. Senator Garn, if I may, I believe the figures are closer to 33 percent for service-connected disabilities in our VA medical services. Now some of the service-connected disabilities in our VA medical services are there for nonservice-connected disabilities, although they could be rated very highly disabled, 50 percent or 100 percent, and then we would care for the nonservice-connected disabilities.

Senator GARN. Well, I misspoke myself in using the term "disabilities" rather than "service-connected conditions."

Mr. PRINCIPI. Yes, sir.

Senator GARN. So the figures I used were for service-connected conditions. It does not change the conclusion of my—the fact that there are a lot of people there with service-connected conditions rather than disabilities. Those are figures from your own hospitals and the breakdown is different. It is 38.9 percent, about 40 percent, on just disabilities alone.

But when is the VA planning to implement changes in the rating schedules for service-connected disabilities?

Mr. PRINCIPI. We are looking at the rating schedule now, sir, to modernize the rating schedule if you will, to bring those medical conditions up to currently accepted medical practices.

So we have a very aggressive and ongoing review of the current rating schedule to modernize it, if you will, based upon current medical technology.

Senator GARN. It is a little frustrating because I have been talking about this for 15 years, and that is all that has happened is just talk.

Let me give you an example, even with a service condition or disability. I have a friend—I will not disclose his name—but he played football while he was in the service. And he broke his collarbone playing football in the service.

When he was discharged, he was urged to get an assessment of his injury, largely because it may cause him a problem in the future, even though it did not at the time. He was given a 10-percent disability rating. His disability currently does not impair his lifestyle at all, and this has been going on for a long number of years.

He referees high school basketball games. He has an 8 handicap as a golfer. He is probably in a lot better shape than most of us in this room. But he also gets a disability check of $80 a month and has done for years.

And again, where the needs are so great, I fail to understand why somebody that can do all of those things gets a 10-percent disability and gets $80 a month. That is $80 that could be used for somebody who has a serious problem and maybe not be adequately taken care of.

If he chose to go to a VA hospital, he would be entitled to treatment as a category A. He even went into a VA office and told them that he was not deserving of this, and they told him that the only way that they could handle that, they could not just stop sending him the money, that they would have to take his disability rating away.

But, very frankly, he did not want to have it taken away in case he did have a problem 25 or 30 years down the road. So I realize, gentlemen, I am a broken record, but I do not understand all of this treatment of nonservice-connected problems, nonservice-connected disabilities in some cases, and people that are given ratings that are more healthy than I.

And $80 a month may not sound like very much, but I guess there are a lot of other cases there that might either help the budget deficit or help some of the problems that Senator Mikulski is talking about, and they need to be solved.

So I am one of those who has never been very happy with the VA because I really do not quite understand how it works, and the longer I am here, the less I understand situations of this kind.

So I suppose rather than a question, it is more of a lecture, other than a general standpoint of how do we get at some of these things? How are we more equitable and why do we spend such an enormous amount of money over people where their military service did not cause them any problem whatsoever.

Mr. PRINCIPI. Well, sir, you raise some very, very controversial, difficult issues that we do grapple with every day. The situation you described is one mandated by law. That individual, based on the service connection, the disability occurring while on active duty, is service connected, whether it happens on the ball field or in the theater of operations and he takes a shot to the spine.

It makes no difference, as long as it occurred while on active duty. That individual by law is category A veteran entitled to medical care in our VA medical center by virtue of the fact that he is service connected, and we must carry out that law.

I do believe that we have taken steps in the past years, very difficult steps as a result of the budget reconciliation process in grappling with some of these issues. We have tried to reach a consensus with the veterans service organizations on things that can be done.

We have tightened up in some areas. We are reviewing the rating schedule. We came up with about $3.2 to $3.5 billion savings over 5 years; $600 million savings in the first year.

We imposed copayments, deductibles for medical care in our facilities. We are increasing those revenues to the Federal Treasury.

So whereas from your perspective, sir, we may not have gone far enough, we have taken some concrete steps the past 2 years and will continue to look at programs to make sure they are fair and equitable.

But you do raise some very, very difficult questions that we have grappled with and will continue to grapple with.

Senator **Garn**. Well, if a broken collarbone would get me an 8 handicap, I would get my collarbone broken.

Thank you, Madam Chair.

Senator **Mikulski**. Now the committee will hear from Senator Robert Kerrey of Nebraska.

Senator **Kerrey**. Thank you, Madam Chair.

First of all, Mr. Secretary, I think you know that I have a slightly different perspective than my good friend from Utah, Senator Garn, since I am service-connected disabled.

But, that aside for a moment, I want to thank you, Madam Chairman, for your support of programs for veterans who are service connected.

Without your support, it is unlikely not only that disabled veterans would get the kind of care that they deserve, but all veterans.

If one believes in an incentive-based system, one could actually make the argument—I could, at least with respect to the particular operation in which I was wounded—make the argument that if you get wounded, you are not going to get medical benefits. One could make the argument that the people that were on my operation that were not wounded did a better job than I did. I concede, that the Senator from Utah would think that that is a flimsy argument, but I find——

Senator **Garn**. Senator, I would only say that none of my remarks had anything to do with service-connected disabilities.

Senator **Kerrey**. I understand. I simply want to make it clear that, though I understand the basis upon which you asked questions about nonservice connected, I feel equally strong, as I have during the 15 years I have been going to veterans hospitals and visiting veterans there, that there is an obligation for nonservice-connected veterans.

And I feel badly at times, as a service-connected veteran, that friends and acquaintances that I know find themselves facing a preexisting medical condition that makes it difficult for them to purchase health care.

It is a generalized problem in America, not just faced by veterans, but by all Americans, of declining access and rising costs, and the problems the Department of Veterans Affairs seems to be facing in running a hospital efficiently is a problem that all hospitals are facing.

Perhaps the problems are more acute in a Government hospital, but nonetheless, it seems to me, they are problems we are facing throughout our entire health care system.

I just wanted to make it clear that I have a respectful disagreement with the ranking member. I understand that the Senator is raising questions in a constructive way. It is a constructive debate and an important one because I do not want to provide benefits to individuals who do not deserve them. I do not want to provide benefits to people who do not deserve them since, in providing those benefits, one then may be taking them away from somebody who does.

RESEARCH

I just see growing problems in our system, and I appreciate that you put additional money in there, even though I still see it as insufficient.

I would also spend just a moment on research. Again from personal experience, I have benefited enormously in a very personal and real way.

The Department of Veterans Affairs research in prosthetics has done things that the private sector simply would not have done; and not only have you benefited me, but you benefited an awful lot of nonveterans who have taken advantage of the advances in research.

The same thing has happened in cryosurgery, in urology, and in many other areas where we very often assume, I think incorrectly, that unless the research is done in the private sector, it is not apt to be good.

The research in the Department of Veterans Affairs hospital, has materially improved the lives of veterans and nonveterans alike.

I have a series of questions that I will submit for the record.

I would, Mr. Secretary, point out that I have three pages of questions on what I consider to be a very minor but important issue; that is, Fort McPherson Cemetery in Nebraska.

I was successful in getting the money in last year's appropriations bill. That came as a consequence of contact with veterans at home, veterans who I believe have a very good understanding of the situation there. I understand there is a difference of opinion in the Department of Veterans Affairs.

I hope that you will give me the same respect you gave Senator Leahy. Let us visit and work this thing out so that we do not—so that I do not—have to spend the amount of time that I have spent thus far on this particular issue.

I know that during a tight budget, you would like to leave this item out, but it shouldn't be left out. I hope that we are able to work out this problem.

JoAnn's husband and I just took a recent trip. We talked about your job. I know you have much to do with limited resources. But, I hope that we are able to work out this one rather small disagreement.

Secretary DERWINSKI. We will be happy to answer those questions.

[The statement follows:]

STATEMENT OF SENATOR KERREY

Secretary Derwinski, I want to join my colleagues in welcoming you back to the subcommittee to present your budget request.

I have a great respect for the job you have before you—for the responsibility you have to some 26.9 million veterans and the more than 44 million family members of veterans. I have a very personal respect for the medical program which you operate—the largest Federal medical care delivery system in our country.

And, yet I must tell you that I feel a certain discomfort with your operation. I sense a real disquiet among our veterans. I share their perception that benefits and quality of care are slipping slowly away.

I talk to the people at home. They tell me prescription costs are up. They tell me that certain types of care are not available in all our hospitals. They tell me that physicians and nurses remain difficult to recruit and retain. They tell me of long drives because care is not available at the closest facility or because there is no really convenient facility. They tell me that reimbursement for travel is being restricted. That may not seem like much to someone listening to this hearing but to a 67 year old who has to get up at 4:30 in the morning to drive three hours for his appointment, I assure you it is a very serious matter.

The veterans in my state will also tell you that existing facilities are being allowed to deteriorate. Repairs and renovations are not being made. New equipment is not being brought on in a timely manner. We have state extended care facilities—which help you provide care at a very reasonable cost—which have not been able to get renovations because of your emphasis on new construction. That is a problem when people in Scottsbluff tell me that dust and sand blow into the living quarters.

Finally, I am disappointed by your response to our veterans in Nebraska who have sought an expansion of the Fort McPherson Cemetery. Frankly I don't think their efforts—or mine—need to be dismissed in the way that they have. I have a letter here from the Past State Commander of the Nebraska Veterans of Foreign Wars. It tells me far more about Fort McPherson and the situation there than you and your department have—despite the fact that I offered you such an opportunity in response to questions submitted at the comparable hearing last year and in correspondence. Your blind adherence to the fact that there are six acres out there, regardless of what those six acres may be reeks of bureaucratic inertia and unresponsiveness. I regret that we haven't been able to work together on this.

Senator MIKULSKI. Senator Kerrey, you might recall that when you came to this committee 1½ years ago and we faced the supplemental budget, there was the horrendous backlog in prosthetics itself, as well as deficiencies in research spending.

You might recall the number of people who were waiting for prosthetics, the terrible length of time for prosthetics and working with Secretary Derwinski, this committee really took the leadership in overcoming the backlog.

We felt that at the very least, where it was very clear that a disability was service connected, that we could certainly meet our commitment in doing that.

Senator Lautenberg, we promised Secretary Derwinski that he could leave at 2:15 because of a Cabinet meeting. Perhaps if you have one question directed at him. But his team is going to be here to talk about health care, the cemetery issues, the general management issues.

Senator LAUTENBERG. Thank you very much, Madam Chair.

I apologize for coming in so late, and I looked at the Secretary's statement and was pleased to see he is ever present for the veterans.

HEALTH CARE FOR OLDER VETERANS

Mr. Secretary, you and I have talked many times and I know that you take our concerns very seriously, the fact that access to health care by older veterans might be limited by a rush coming from the Persian Gulf veterans. In your comments you said you would be conscience of it and try to make sure that nothing happened, and I speak for the older veterans.

MAGNETIC RESONANCE IMAGING

But a couple of simple little things if I might, Senator Mikulski, in just very short order. One is the crush of expenses and lack of resource presents us with a problem in New Jersey with the MRI installation, magnetic resonance imaging unit.

The Department chose to award the medical center in East Orange the funding for its acquisition. Unfortunately, because of delays in getting the necessary New Jersey State approvals for the project, the Department chose to transfer the funding from this project to another so the money could be spent in fiscal year 1990.

The need for the second unit is certainly there, in New York and eastern Pennsylvania requires the services of that kind of equipment, and the only unit serving the area is the one which is the mobile unit in the Bronx and Manhattan.

So I would appreciate it if we could take a look at that, to make sure that the services are available more readily to New Jersey veterans, and they do not have to travel so far to get it.

READJUSTMENT COUNSELING CENTERS

And the other thing is a very simple requests, the storefront centers, they have been the subject of a lot of debate. I must tell you on a personal basis, I have visited with them, and saw how important these facilities are to local veterans. And some of them are in terrible condition.

Even in Trenton, NJ, our capital city, there is a problem with something as simple—I hate to take the committee's time—as the physical condition of the facility.

Has the VA allocated enough funds to maintain, oversee these storefront centers so that they can respond to the burdens that they have and to make sure that they are maintained in a decent quality so that people do not have to feel discouraged the minute they walk in or, worse, be turned away from applying for the care that is available?

Secretary **DERWINSKI**. I would say, Senator, in principle and generally yes, because I have been in a number of these facilities. The other day I was in Fort Wayne, IN, and I was impressed with the cleanliness, scope, and the availability of printed material—a very effectively run unit.

Recently I was in Knoxville, TN. They had a very impressive office. Sometimes it is the nature of the lease, sometimes it is the nature of the area we are in, and sometimes it is just local attention or management, if you want to call it that.

But yes, we are constantly attempting to upgrade them, and the program is one that has Dr. Holsinger's special priority. Dr. Blank, who is in charge of that program, has had, in effect, his leadership renewed for 4 additional years to demonstrate the continuity of the program.

So we are doing the best we can.

Senator **LAUTENBERG**. Have one of your people take a look at the Trenton facility for me, please.

Secretary **DERWINSKI**. Sure.

Senator **LAUTENBERG**. Thank you very much. I have some questions I will submit in writing, Madam Chairman.

IMPACT OF DESERT STORM VETERANS

Secretary **DERWINSKI**. Madam Chair, may I? You and Senator Lautenberg both touched on the same point. Let me just succinctly direct your attention to the impact of the Desert Storm veterans and what it means to the older generations of veterans.

Frankly, because of the brevity of the war and the lack of casualties, the impact is not substantial. The number of medical discharges we will be receiving from Desert Storm will be relatively small.

We were ready, of course, to handle all sorts of casualties. They did not come. I think it is accurate to say that the budget we present to you for 1992 was primarily drawn up to serve what was the pre-Desert Storm veteran workload, and we are ready for it.

And out of the Desert Storm campaign, we have approximately 150,000 new veterans, which is a little more than one-half of 1 percent of the 27 million that we have at this point.

All the regulars had already been calculated in our down-the-road statistics. So in the sense of continuity of service to World War II, Korean, and Vietnam veterans, Desert Storm actually does not constitute an extra burden or interference.

Senator LAUTENBERG. I saw you explain that situation on television this morning and you did a very good job, Mr. Secretary.

Secretary DERWINSKI. May I be excused, Madam Chair?

Senator MIKULSKI. Yes, Mr. Secretary. We look forward to other conversations with you. When you are with the President this afternoon, tell him thanks for everything and we have got to be able to do more for veterans than yellow ribbons.

Secretary DERWINSKI. If you are still feeling tough, Mr. Principi here can take it.

Senator MIKULSKI. I feel tough all the time. I am like a little $2 steak, if you can find one. [Laughter.]

NATIONAL CEMETERY SYSTEM

Mr. Principi, I would like to pick up, if I could, on the national cemetery issue. Veterans bring up continually in conversations with other Senators the issue of burial and grave-site maintenance.

We understand that workload has increased by 35 percent since 1983, but staffing and resources have not kept up. Many cemeteries are in deplorable conditions. The DAV brought me pictures of the Riverside, CA, cemetery and I was just horrified to see these sunken grave sites.

And as I said, we view this as sacred ground. Also, we understand that staffing is to be cut here by 33 positions. Could either you or your designee comment on this, and what is the issue in terms of proper maintenance of the cemeteries and how can we do it?

Mr. PRINCIPI. One area where we have not kept up as well as I would have hoped is in the area of funding for our national cemetery system. There is just no way to get around that factor, Madam Chair.

We are attempting to do better, and I believe we will. But clearly, we have a distinct workload increase in our national cemetery system as a result of an aging veteran population, the World War II veteran population that is passing on. The budget has not followed suit.

RIVERSIDE NATIONAL CEMETERY

We are making an effort to counter that. We were able to get some reprogramming authority, thanks to you, in the supplemental, to allow us to address some urgent, critical needs such as the

Riverside National Cemetery and others. We will look at the 1993 budget request and see if we can even increase that level of funding.

With regard to Riverside, I visited Riverside. I think as bad as the scene, as appalling as it was, I think it is due in large part to an act of God: absolutely droughtlike conditions for many years, restrictions on water usage in the State of California, followed by the most torrential downpours during the month of March that I have ever seen there.

That is going to cause problems. If we had ample funding, I think we could have minimized the damage, but what I am so proud of is the way VA responded to that situation. Within a very, very short period of time we allocated emergency funds. We sent teams in from Washington, both from the national cemetery system and the Office of Facilities.

We let a contract within days, and today the National Cemetery in Riverside has been restored to a proper burial place for our Nation's veterans.

I can only commit to you, Madam Chair, that we will do whatever is necessary to get increased funding for the cemetery system in the years ahead.

JoAnn?

Ms. **Webb**. I would like to add that I have recent photographs of Riverside to show the improvement, and since the so-called disaster there has been $300,000 of emergency funding that has been expended on Riverside.

There is another $200,000 that is coming from reprogramming within the VA, and of that expected supplemental money, we hope to direct $1 million toward Riverside.

CEMETERY EQUIPMENT BACKLOG

Senator **Mikulski**. I want to follow up on this cemetery issue by asking you about this equipment backlog of $9 million. I understand that in order for there to be the proper lawnmowers, the proper tractors, and so on, that there is a $9 million backlog. And part of the street talk is that even local service organizations have been asked to kick in to buy the equipment. We cannot run national cemeteries on bake sales.

Now, is that true, that we have a $9 million backlog in equipment to maintain cemeteries, that we are essentially asking veterans to do bake sales, and chili cookoffs, and so on to do this?

Mr. **Principi**. We do have a backlog in our equipment and we are chasing good money after bad by trying to constantly repair some of this equipment that is simply outmoded and should be scrapped. We are also leasing equipment because we cannot afford to purchase it.

You are correct, Madam Chair, we simply need to do better. And with funding priorities and constrained budgets, I must tell you, it has been very, very difficult. Our priority has been medical care, and although we have done fairly well there, we have not done as well in some other areas. There is just no way to escape that fact. We need to work with you and the staff to see if there is something we can do.

With regard to service organizations, that may have arisen out of a conversation I had with the Disabled American Veterans [DAV]. The DAV has been one of the most supportive, in terms of supplying vans for beneficiary travel and transportation network systems. They have been extraordinarily supportive of the VA, as have the other service organizations. I recall a conversation I had with the leadership of the DAV. I said to them that they have done such a magnificent job with the transportation system, supplying all these vans and vehicles to the VA hospital system, that perhaps they could help us out with our cemetery equipment as well. We could use some help there.

They responded very favorably and said, well, yeah, that is part of the VA as well, not only the VA medical centers. We provide volunteers, and vans, and maybe they could do something to support our cemetery system. And it rose out of that. We have not gone out and solicited everyone. But if they could help us, and if they become an intricate part of our effort, then I think that is good government and good for the veterans of our Nation.

Senator MIKULSKI. Well, I think the veterans of America have a wonderful record for, first of all, what they have given to the country in times of battle. What they continue to give in terms of their community, you cannot go to a charity event, or a Rotary Club, or a Kiwanis and not see the veterans leading the way.

However, when it comes to certain basic bottom line issues, whatever they do is in addition to what Government's commitment should be, not in lieu of what Government's commitment should be. [Applause.]

PROSTHETICS

When I took over this subcommittee, there was this horrendous backlog on prosthetics that we mentioned with our colleague, Senator Kerrey. In 1989, we inherited this problem and we worked together to come up with a $10 million urgent supplemental, you might recall. And then in the 1991 budget, we were able to raise the prosthetic funding for veterans limbs to over $148 million.

So we dealt with that backlog. And I think if we really focus on what is some of the backlog issues and keep taking bites out of it, we could move it along. And I would like to work with you on this issue and the backlog, particularly on facility upgrading.

Mr. PRINCIPI. Yes, ma'am.

BALTIMORE REPLACEMENT HOSPITAL

Senator MIKULSKI. Let me scoot over now to some Maryland concerns. The Baltimore VA Hospital is scheduled to open in October 1992, and we are really looking forward to that. We also understand that there is the need for $11 million to activate the Baltimore Hospital in terms of making sure that it has the right equipment, that the supplies are there, that the staff is there. We know that the hospital construction will make it fit for duty, but we want to make sure it is then activated.

Will the $11 million you have requested be adequate, and when we open the doors in October 1992, we will have the hospital, the staff, and the equipment ready to go?

Mr. **Principi**. Dr. Holsinger, Madam Chair.

Dr. **Holsinger**. Madam Chairman, I believe that the funds that have been established for the activation of the new Baltimore VA Medical Center will be adequate to make that a facility you will be proud of.

Senator **Mikulski**. Ms. Barbara Gallagher, I know, is doing a terrific job coordinating that hospital, the opening of that. There will be enough nursing staff?

Dr. **Holsinger**. Well, I cannot promise that we will always be able to recruit every nurse that we need exactly when we need them. That is a horse of another color. The provided activation funds should be satisfactory for them to hire the number of nurses that they have requested.

We have one major unknown in that, which is that effective April 1 of this year, our locality-based nursing pay system, which was passed by Congress, last Congress, goes into effect. And until those final surveys are done and come in from each of our facilities, we will not know the total cost of that package. And so, until we have those numbers we are not going to be sure exactly whether everyone's budget is going to be able to accomplish——

Senator **Mikulski**. But given what we know now, Doctor, what percentage of the beds will be staffed when we open?

Dr. **Holsinger**. We staff all of our facilities on a basis of 80-percent occupancy. All of the beds will be staffed, but we basically staff on a basis of having no more than 80 percent occupied beds.

Senator **Mikulski**. And how many beds will that be in Baltimore?

Dr. **Holsinger**. I would have to work the calculation.

Senator **Mikulski**. That is about 300?

LOCH RAVEN

One of our concerns also is Loch Raven Hospital that has served many needs since the 1950's. We have been working with you in terms of the future of the Loch Raven plant. Could you tell us what is the status of the proposal to turn Loch Raven into a long-term care facility? At the end of its tour, we do not want to mothball that facility or just make it available for excess property for non-veterans' use.

Mr. **Principi**. Madam Chair, Assistant Secretary David Lewis is in a position to give you an update on the status of our legislation to have the authority to do the kinds of things we have talked about with regard to Loch Raven.

Mr. **Lewis**. Madam Chair, there is nothing or no project before our office right now which has more interest, more attention than Loch Raven. You were good enough to secure the necessary legislation to do what was necessary to save this facility for the community and, hopefully, for veterans too.

Since the legislation was enacted, I believe in November of last year, and since we first came to you with the proposal, there have been a couple of generic changes in the marketplace and in Baltimore in particular.

We had initially planned, as you may recall, that we would occupy about 90 beds in a so-called community-based nursing home at the facility. That is still our hope. However, we are finding that after an industry forum, which we conducted there, and after new intelligence about the number of certificates of need which have been issued, that that may not be as easily accomplished as we had hoped. By no means are we giving up on that expectation.

Second, what has changed in the scenario is that we had initially assumed we would be moving out of some rental quarters in Baltimore for various prosthetics activities. A recent inspector general report has indicated that those facilities should not be located there and should be moved. That report is out for comment now. It is a draft report. But that has been the recommendation.

Having said that, we have had a very active dialog with the University of Maryland. We are highly hopeful that the university is very interested in sharing some of those facilities. We feel that there are many other opportunities there too. We will go into the marketplace on or about May 15, with a request for proposals for comment by industry as a whole. That will be a rather broad spectrum kind of a RFP because it will include nursing home beds, as we previously outlined, such operations as a doctor's park, and various other thoughts that have been presented to us by the community and by others which will perpetuate and keep that hospital alive.

Senator MIKULSKI. Well, first of all, you know my commitment that Loch Raven be really designated to the maximum extent possible to veterans' use. We own the property, we own the facilities. Second, I understand what you said about marketplace changes, but I met with leaders in the nursing home industry on long-term care on another matter. I asked them about Loch Raven and they were not even aware of the industry forum. They, themselves, and the people that I consulted with are the largest providers of both profit and nonprofit nursing home care in that Baltimore metropolitan area. I do not know who you had at that nursing home forum.

Mr. LEWIS. Well, it was widely advertised or advertised in Commerce Business Daily and unfortunately, I guess, it just did not reach them. But I can assure you that they——

Senator MIKULSKI. Did you go to the Maryland Association of Nursing Homes?

Mr. LEWIS. Well, we went beyond just simply nursing home interests. We went to the development community at large in order to try to invite their interest and doing the appropriate things.

Senator MIKULSKI. But if the whole part of the idea was to have Loch Raven be primarily a long-term care facility, including, not only nursing home beds, but perhaps an adult day care program, respite care, some others along these lines——

Mr. LEWIS. Well, that idea is very much alive.

Senator MIKULSKI. But the people who are most likely to know whether the idea was desirable and feasible would be the people from the nursing home industry, not people who do condos, and office parks, and industrial parks. [Applause.]

Mr. LEWIS. Well, we will not make that mistake again. When the RFP goes out we will be very sure that it reaches the appropriate people.

Senator MIKULSKI. Well I will tell you what, while we are doing RFP's, I am going to suggest two things. One, that you contact the Maryland Health Planning Association to see what the need is in terms of health care, particularly for an aging population, and particularly for a population primarily, but not solely, males.

I will tell you this. When my own dear father was so ill from Alzheimer's, we needed to turn to a nursing home. It would have been cruel to keep him at home for a longer period of time because of the care he needed. We found a shortage of nursing home beds for men when we looked. Because the regulations of where beds need to be set up, our nursing home population right now, in private and nonprofit sector, is primarily female.

We know that people are calling my office to get in Fort Howard and other veteran nursing home facilities. in Charlotte Hall, they call me like it is patronage because of the waiting list, and the ability to get in, and the desirability of the veteran's own facilities.

I am going to, therefore, ask that you contact the Maryland Hospital Association, that you also directly contact the Maryland Nursing Home Association. If this is a good idea, we would like to know about it. If it is a pipe dream, we would like to know about it because the clock is ticking. We cannot treat this like it is real estate development. It is a whole different approach.

I was very surprised to hear that the Maryland Nursing Home Association was not contacted because they are the ones who would say whether this was feasible, desirable, or achievable.

Mr. Lewis. We will certainly do that, Madam Chair.

OUTPATIENT CLINIC—WESTERN MARYLAND

Senator Mikulski. In western Maryland, an outpatient clinic is planned to open on July 1, 1991. Could you tell us when we are going to announce the location and when it will be opened?

Dr. Holsinger. Madam Chair, I do not have that information with me. I will have to furnish it to you for the record.

[The information follows:]

The VA will be leasing space in the Cumberland Memorial Hospital. The ribbon cutting is planned for July 1,1991.

Senator Mikulski. Well, this has been a high priority, I know, with the Secretary himself and we would really like the information.

Mr. Principi. I am advised that that is a sharing arrangement with the local hospital there, Madam Chair.

Senator Mikulski. Yes.

Mr. Lewis. And we are waiting for that decision to be made in conjunction with our local hospital. And as soon as that sharing arrangement is worked out, the announcement will be made. So, we will get further information for you for the record.

Senator Mikulski. Did you want to comment on it?

Mr. Catlett. No, ma'am; that covers it. We will be completing the negotiations with the local hospital and informing your staff as soon as that is completed.

CLAIMS PROCESSING BACKLOG

Senator Mikulski. We have been focusing a lot of our conversation on medical care. I would like, now, to go to the Veterans' Benefit Administration.

From what I understand, VA has an average monthly backlog of more than 389,000 compensation and pension claims. The average time to process a compensation claim is 148 days. Fewer than 30 percent of all the compensation claims are completed in less than 3 months.

Could you tell us what you intend to do to rectify that situation and we are concerned that the budget includes only 33 new staff for the entire Veterans' Benefit Administration?

Mr. GRAY. Madam Chair, the rectification of that situation that you described will take several actions. The longest term, but most effective, most useful in the long run will be our ADP Modernization Program, of which I know you are familiar. And our budget this year includes funds for the purchase of the stage I hardware, but that is a future, that is a promise, not what we can do today.

We have two major factors that take up most of the time in the delay of processing a compensation or pension claim. One is a matter of getting the service medical records of the individual veteran who is concerned.

OBTAINING VETERANS' MEDICAL RECORDS

We are working on several initiatives with the Department of Defense, one of which we would like, at least, to see a process by which either we take the medical record at the discharge and become responsible for it—DOD is not yet agreeing with that, I hesitate to say—so that we will have it when the veteran comes to file his claims. Or that we find someway to get more responsive service from the DOD record center when our regional office requests a record.

A second delay is one that is more in-house, our inability——

Senator MIKULSKI. Surely, if we can move hundreds of thousands of troops to the desert in less than 6 weeks, we can move records out of a warehouse in the same amount of time.

Mr. GRAY. Moving them is not the problem, Madam Chair, it is finding the bloody things.

Senator MIKULSKI. Is it a mess over there?

Mr. GRAY. It is a mess over there. No; let me put that differently. Medical records for former service people are not very high on the list of the Department of Defense's priorities to maintain, to store, to care for, and so on like that. To me, they are the moral equivalent of a rifle or a machine gun. They are basic tools of my trade, now, in the VA. They are not so in the Department of Defense and, therefore, getting the attention that is needed and getting the funding, and the people, and the procedures within the DOD to respond to our request, has not yet proved possible. But we will prevail.

Senator MIKULSKI. Could I just ask, when a veteran files a claim and this medical record takes so long, is the veteran applying quickly for this claim from the time the medical record was established? Or is there a 10- or 20-year lapse?

Mr. GRAY. Both. Most of the time, it is relatively short, not 10 or 20 years, not necessarily unless there is a severe or recognizable immediate disability, will he come straight to us. If he is being discharged for a disability, for a physical disability or something, we will get him very quickly. But most often it is within 2 or 3 years, not an extended period of time.

TRANSITION ASSISTANCE PROGRAM

But you came upon one of the things that I was going to come to later on. We are, at the Congress' direction and enthusiastically embracing it ourselves, also working on a transition, what is called a transition assistance program. A means by which we will meet the veteran, so to speak, at the gate of the military base when he comes out. Actually, we are going to meet him inside before he is discharged, and be a part of a DOD, Department of Labor, and VA team, to help his transition into civil life.

And one of those transitions is going to be, if I can work it out, some way that we get a copy of his medical record at that time so it is available in case a disability comes up later on in his life. And, I might add, we need some money for that.

Senator **Mikulski**. Has Mr. Derwinski talked to Mr. Cheney, though, about a commitment within DOD to move this?

Mr. **Gray**. I know Mr. Derwinski has talked to Mr. Cheney. I was not privy to the conversation. I do not know.

Mr. Deputy Secretary, do you know if that letter was on——

Mr. **Principi**. I believe he has. Last year we were successful in getting some legislation, at our encouragement, through the Armed Services Committee, which would expedite the transfer of those records from DOD to the VA, Madam Chair. But it continues to be a problem and I am told it is up to 90 days waiting time to get the records. So we are already minus 90, if you will, or plus 90, I should say, in adjudicating some of those claims. So it really does pose a problem.

But we are continuing to look for ways to improve our relationship with DOD in a broad range of areas. This is one of them.

Mr. **Gray**. I would not want to leave the impression, Madam Chair, that the Department of Defense is at fault for all of our delays. We need to improve our systems and particularly our ADP systems and a reengineering of the way we do things. With this additional capability, over time, is going to help us cut the time after we have got the information that we have; how we handle it, manipulate it, match it against the law, and get checks out to the deserving veteran.

Senator **Mikulski**. Well, we have two situations here. One, you.

Mr. **Gray**. Yes, ma'am.

CLAIMS PROCESSING BACKLOG

Senator **Mikulski**. Your decision. And then we will be talking about the Board of Veterans Appeal, which is a whole other delay, and so on. And if you need a pension or you are in disability, my gosh, by the time you get around to getting that which you are legally entitled to, you are pretty far down the pike. I do not know what the parallels here are to social security or to workman's compensation, who also have to furnish benefit claims.

But let me ask you this. What do you need from the Appropriations Committee to eliminate this long delay?

Mr. **Gray**. What I need in 1992 is funding for 280 FTE, 50 for the transition assistance program, and the 230 that were cut from our current services program when it went to OMB. That will allow us to do the job that we did last year, same level. The additional

50 in the Transition Assistance Program will enable us to do a better job as the armed services begin their postwar drawdown that we hear so much about.

The supplemental, the $12 million supplemental that the Congress has given us, if I were to get all $12 million of it—and I know there is going to have to be some reprogramming because of other things that we have talked about here—would allow me to hire another 210 people that I need to take care of the added workload that the sudden return of 150,000 new veterans is bringing to me.

Senator **Mikulski**. So what does it all add up to?

Mr. **Gray**. At this point, it adds up to 280 FTE in 1992 and the funds to provide for them. However, there will be additional resources required to continue to process Desert Storm compensation, pension, education, and housing claims.

Senator **Mikulski**. And that would be how much money?

Mr. **Gray**. I do not have a dollar figure but I can have it for you before the record is printed.

[The information follows:]

The Veterans Benefits Administration will require $10.5 million to support an additional 280 FTEE in 1992. This estimate includes $8.2 million to fund 230 FTEE which will allow us to operate at the current services level. This estimate also includes 50 FTEE and $2.3 million to support the Transition Assistance Program. However, this estimate does not include the resources required to process claims from veterans returning from Operation Desert Storm. We are currently discussing those resource requirements with OMB.

Senator **Mikulski**. OK. Well, we want to have the dollar figure, and what you are saying is, you need people, you went to OMB, they said, when you submit to Congress, shrink it down a little bit. But really make sure your operations has the people because it is a people-intensive process.

Mr. **Gray**. It is.

Senator **Mikulski**. It is a claims process. It is like any other insurance, or as I said, social security application process, is that right?

Mr. **Gray**. Yes, ma'am; that is also correct. We can support some of that out with the things you have funded and with things OMB did support, and through operational improvements in our modernization program. That only allows us to operate at the current levels of timeliness and quality; it does not improve anything. Again, I must caution that it does not include continuing service to our returning Desert Storm veterans.

Senator **Mikulski**. And then what would it take to improve it?

Mr. **Gray**. Just throwing people at it right now would not help because by the time it takes me to hire these people, train them, and get them on the job, it is next year's budget problem and I do not have a total solution, yet, to present to you.

Mr. **Principi**. Money, Madam Chair, is one factor and I think D'Wayne has articulated the need in that area very, very well. But certainly, there are things that we need to do as well. Compensation and pension exams have to be a high priority within our Medical Department so that, when a veteran files a claim for disability, our medical centers throughout the Nation place a high priority on performing those compensation and pension examinations.

Modernization of our ADP infrastructure is so terribly important and we were very fortunate to get full funding for our modernization program in this year's budget. Also training. We have a very, very high turnover in our adjudication ranks. It is terribly high and we need to dedicate resources to adequate training for our adjudicators.

We need to consolidate certain functions. I am not talking about closing down regional offices, but certainly, there are functions within our system that lend themselves to consolidation. A lot of the clerical-type work, 800 numbers, there is much that we can do internally to improve our own productivity.

So really, it is dollars, it is priorities in comp and pen exams, it is modernization of ADP, it is training, and it is making some of the damn tough decisions that need to be made. When you run a large bureaucracy these decisions are difficult because there are people involved, jobs involved, movement, and things of that nature. But those are the kinds of things we are trying to take on to improve the efficiency and effectiveness of the Department. Unfortunately, they come slowly. Too slowly for my taste, but that is the way it is.

Senator MIKULSKI. Well, first of all, we appreciate what you said. Now what we need to be able to do is operationalize good intentions. We do not doubt your good intentions. What I am trying to get at today is, are these management attitude problems that you have to deal with, or are they funding problems in Congress? You say it is both.

Mr. PRINCIPI. It is both. It is both, and you know, D'Wayne and I—we look at the Department of Defense and we look at the VA, and we look at the redundancy in our systems and the waste of valuable taxpayer dollars to duplicate the same services. D'Wayne's favorite example is, if you are a military retiree you get a military retirement check from the Department of Defense; if you are disabled you get a disability check from the VA; if you are militarily retired and you are disabled, you get a check from the DOD, and the VA sends you a check as well.

Just the infrastructure to maintain those two systems is exorbitant. The Department of Defense maintains physical evaluation boards. The VA, of course, we have our own infrastructure on disability, the computer systems, and on and on and on.

We could spend an enormous amount of time looking at the redundancy across jurisdictional lines, and I think if we can break down some of those barriers to good government we can not only save the taxpayer an enormous amount of money, but we could use those dollars to improve service to the Nation's veterans and others in a more cost-effective way. We have been trying to do that and I must confess we are not getting very far, but we are continuing to try.

Senator MIKULSKI. Well, Mr. Principi, we want to work with you on this, because—and now we are going to go to the Veterans Court of Appeals in a minute, but here is what happens. It takes months to be approved, then—nobody likes bad news, so then you go to the Board of Appeals. That takes another 6 months to 2 years.

Then you leave there, and then you go on to the Court of Appeals, which veterans had hoped would be able to deal with that, but each section can only function until we come back here, and then all of a sudden, as I said, we are into 4 years of the process, and that is just not acceptable, because these men and women are veterans and we should not be placing obstacles in their path.

Mr. PRINCIPI. Absolutely.

Senator MIKULSKI. We have other questions for the record. I am going to have one other question. Senator D'Amato was here, and we are going to ask unanimous consent that his statement be entered into the record and other questions.

[The statement follows:]

STATEMENT OF SENATOR D'AMATO

Madam Chair, I am pleased to join you this afternoon to hear testimony from Secretary Derwinski on the President's 1992 budget proposal for the Department of Veterans Affairs.

In the wake of Operation Desert Storm—and in light of the dedication and bravery demonstrated by our service men and women in the Persian Gulf—I couldn't agree more with Secretary Derwinski's statement that our veterans deserve the very best this Nation can provide.

I think this budget is, on balance, responsive to the needs of our veterans. At $33.2 billion, it is the largest VA budget ever proposed. I especially applaud the VA's commitment—reflected by a $1 billion increase in the "Medical care" account—to making improvements in patient care environments, aging veterans programs, and drug abuse treatment programs.

There are areas, however, where the VA could be doing much more. I am particularly concerned by the VA's failure to come to grips with the problems of homeless veterans. It is estimated that there are roughly 250,000 homeless veterans, representing about one-third of the homeless population. Yet, I understand that the VA, through its two homeless veterans programs, has had contact with only 40,000. Why, then, are these programs receiving increases of only 5 percent in fiscal year 1992?

We can do better than this, and we have to do better. Only then can we say, in the President's words, that our commitment to our veterans is equal to their commitment to their country.

Thank you, Madam Chair.

CLINICAL LABORATORIES

Senator MIKULSKI. But before we wrap up, there is something that is really special to me, and that is called the CLIA regs. Now, CLIA is not the name of some dancer in a Baltimore saloon. CLIA is the legislation that I did with other colleagues to clean up the laboratories in the United States of America. This is clinical laboratories both in doctors' offices and in other places that were developing horrendous records.

For example, for women, we had a 40 percent false negative rate for pap smears, meaning 40 percent of women were told that they were OK when the pap smear really showed that they had cancer. Also, we had error rates in cholesterol testing that were equally as high, and in AIDS testing. This is not at VA hospitals, but across the board. So we teamed up and introduced the cleanup of the clinical lab legislation.

It has—because we waited for 5 years for the Health Care Finance Agency to do it it has created quite a controversy—I do not minimize it—because of the years of just everybody saying, "Not in my backyard."

Now, Dr. Holsinger, you testified at the April 10 hearing of the House VA subcommittee that you wanted VA to be exempted from CLIA. Why should VA be treated any differently than any other hospital in the United States of America? Why should the VA hospital next door to the University of Maryland be treated differently than the University of Maryland?

Why should the hospital out at Loch Raven be treated any differently than Good Samaritan Hospital five blocks up the street? Why should veterans not have their clinical laboratories meet the same standards of proficiency that we are asking other hospitals to meet?

Dr. HOLSINGER. I would be happy to answer that question, Madam Chair.

First of all, I made that testimony on the basis of the fact that we believe that this legislation, as far as VA Medical Center laboratories are concerned, is unnecessary. We have historically had both Joint Commission on Accreditation of Health Care Organizations and the College of American Pathologists review our laboratories. All of our laboratories have been certified by both of those agencies.

In addition, beginning back after World War II, we were the only entity in the health care business that worked with the Armed Forces Institute of Pathology to have our laboratory data handled on a blind basis to take a look at what we are actually doing, the way we read slides, and the way we handle our laboratory casework. Nobody else in the country does that. In addition, we have taken the lead in dealing with clinical laboratories in the way we report out our results, and we believe that we have an outstanding group of clinical laboratories. We do not read 40 percent pap smears erroneously, most of all because we do not read pap smears that often.

Senator MIKULSKI. Do not get flip. Do not get flip. This is a very serious area.

Dr. HOLSINGER. I am being very serious.

We have worked hard to have outstanding laboratories. We believe we are being, if you will, tarred by the problems of other organizations who have not utilized the same types of activities that we have in an effort to maintain outstanding laboratory work.

Senator MIKULSKI. Well then, if you are that terrific, you would not care about complying. [Applause.]

Dr. HOLSINGER. Well, the cost, Madam Chair, based on our best estimates, would be $82 million up front and take away from other veterans health care programs an additional $75 million per year for us to comply with the regulations, as presented by HCFA.

Senator MIKULSKI. Well, HCFA has not published final regs. It will not publish final regs for several years and it has been my observation that very often the Federal Government exempts its own from what it asks the private sector to do. We really do not want to go down that path for anything.

I happen to think that whatever laws we pass for the private sector, includes ourselves, and that if we pass family and medical leave for the private sector, Congress should have to live by it. If we pass a Civil Rights Act, Congress should have to live by it. If we pass clinical labs, VA and Indian Health Care should live by it.

We cannot have two sets of rules in our society. Congress exempts itself from a lot and I think that is wrong. Government agencies then exempt themselves from complying with what we ask the private sector to do. I think that is wrong, because if it is too difficult for you to comply, then we need to look at the regs.

Dr. HOLSINGER. Well, in point of fact, it is my understanding that the proposed regulations, when published, elicited 60,000 responses, an unheard of set of responses against a proposed set of regulations.

Senator MIKULSKI. It is exactly right, and it is because no one cleaned it up 5 years ago, and now we are into a laboratory equivalent of very serious problems, and 60,000 comments are ready to talk about how they could get out of the regs, when for 5 years we have been looking for 60,000 comments on how to clean up the clinical labs. So just know I feel very strongly about this.

Mr. Principi, thank you. Thank everyone for being here.

Mr. PRINCIPI. Thank you, Madam Chair.

ADDITIONAL COMMITTEE QUESTIONS

Senator MIKULSKI. We will submit the balance of the questions for response in the record.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR MIKULSKI

QUALITY ASSURANCE

SENATOR MIKULSKI: What specific 3 steps are you now taking to: (1) detect quality of care deficiencies; (2) determine why these problems are happening; and, (3) correct them so that veterans get the best possible care?

ANSWER: (1) There are at least three programs within Quality Management which are designed to detect quality of care deficiencies.

(a) The External Peer Review Program (EPRP) being developed will use an external contractor to conduct peer review system-wide. The VA's experience from the Medical District Initiated Peer Review Program (MEDIPRO) provided a foundation of data and processes upon which to develop this program. The use of outside experts will provide an objective approach to the evaluation of the quality of care.

(b) The Occurrence Screening program which has been in place since 1988, identifies occurrences or "events" based on criteria, which may indicate a quality of care problem. These events are automatically identified by the computer for review and do not require identification through chart review.

(c) The Patient Incident Reporting Program has been in place for many years and has gone through several refinements. This program identifies and reports "incidents" which are harmful or have the potential of being harmful to patients, both in-patient and out-patient. More attention is being given to the identification and reporting of incidents.

(2) All of these programs will report data back to the facilities for their use in trending and analysis of the data and facilitating corrective actions. The Office of Quality Management has recently rewritten the requirements of these programs and will be instituting new and additional methods of data analysis and trending at the national level.

(3) The premise of quality assurance monitoring and evaluation requires that "corrective action" be a part of the process. All of the VA facilities are accustomed to this process as a requirement for accreditation by the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO). VA Central Office will continue to educate the facilities toward completion of this cycle in all of the QA monitoring programs. Meeting quality assurance requirements has been made a part of the performance standards for all facility directors and chiefs of staff.

SENATOR MIKULSKI: What are your plans to institute a standardized quality assurance program at each VA hospital--so that a veteran can feel as comfortable going to the VA hospital in Cleveland as the one in Baltimore, and how will you manage resistance from hospital directors who don't want to be told how to run their hospitals?

ANSWER: All VA facilities must meet the standards for accreditation by the JCAHO. In addition, all of the quality assurance programs enumerated in 38 CFR 17.506 must be conducted at each facility and each program requires at least one type of reporting to VACO on a standardized reporting schedule. The Office of Quality Management is developing a "Compendium" of quality assurance resources, directives and program descriptions which will be disseminated system-wide. We are also in the process of assessing the "ideal" staffing for a facility to appropriately and adequately assess and improve the quality of care. There is also a group at the national level developing "clinical indicators" to be employed systemwide. All VA facility directors will be required to comply with a standardized system and this is a part of their performance standards. Performance of Directors in various aspects of QA are being and will continue to be closely monitored at Regional and National levels to ensure compliance with all pertinent directives.

SENATOR MIKULSKI: Why aren't you requesting a budget that is at least the rate of inflation? Isn't an adequate medical budget needed to provide quality medical care?

ANSWER: Yes an adequate medical budget is needed to assure the continuation of quality medical care. The medical care budget represents an increase in funding by almost a billion dollars. Comparing the requested increase to an inflation rate increase does not adequately address VA's commitment to fulfill its mission with greater efficiency and cost effectiveness.

The resources requested will support the provision of quality health care to the estimated number of eligible veterans expected to apply for VA care on a systemwide basis. Additional economies will be attained by the adoption of Medicare rates for fee basis and contract hospital programs; a greater emphasis on the use of ambulatory treatment in lieu of more expensive inpatient care; and the conversion of hospital beds to nursing home care beds.

The request includes all known payroll increases ($+581 million) to support employment. Personal services account for 64 percent of the total medical care budget. The request for inflation ($+280 million) supports a 6.1 percent medical/nonmedical composite inflation rate that reflected the Administration's economic assumptions for FY 1992.

SENATOR MIKULSKI: How do you hold doctors accountable for their performance, since they are federal employees and cannot be sued for malpractice? When an incompetent doctor is found, what do you do?

ANSWER: Physicians are subject to an annual evaluation of their performance in areas specific to clinical competence and other competencies. These evaluations are prepared by the physician supervisor with review and subsequent approval by an administrative physician specifically charged with responsibilities for oversight of clinical practice. Additionally, committees with specific charges for monitoring elements of quality of care report their findings both to supervising physicians and the executive committees of the medical staff. In these ways, areas of concern about individual physicians can be brought to light out of committee review, supervising physician review, executive committee review and Chief of Staff review. Negative findings from any or all of these reviews are processed, by VA procedures, to address concerns in a manner fitting the issue. The range of actions vary from counseling or requiring training to reduction or revocation of clinical privileges to separation from VA employment. When action is taken that fits within VA requirements for external reporting, physicians are reported to state licensing boards and will also be reported to the National Practitioner Data Bank. Finally with implementation of National Practitioner Data Bank procedures, there is provision for reporting individual physicians to the Data Bank and to state licensing boards in all states in which the physician is licensed when malpractice payments are determined, by peer review processes, to be related to acts or omissions that constitute professional incompetence or professional misconduct.

SENATOR MIKULSKI: Are you confident that your contractor review, which will consist of a document review and not physical, on-site inspections, will accurately assess quality of care at individual hospitals? Wasn't a physical inspection what was required to identify the problems at N. Chicago? What sort of follow-up will you do where weaknesses are found--will the Inspector General or the Medical Inspector perform routine reviews of the most problematic hospitals?

ANSWER: The External Peer Review Contract will be an on site medical record abstracting process based on objective medical care criteria. The cases selected will not be determined by the facility and will consist of all cases within a particular diagnosis or procedure grouping for that review period.

Each case which falls outside of care standards will be sent back to the facility for further information. The review panel will then make a final decision which will be sent to the facility. All cases which do not pass the panel's review will be reviewed in the Office of Quality Management to determine if any require special responses or on-site visits by the Medical Inspector or the Inspector General. However, it is the intent of the program to foster continuous improvement by providing comparative data back to the facility and the facility taking appropriate action. The facility's experience will be statistically profiled and compared to other facilities for similar diagnoses. Outlier facilities will be tracked to see if the quality of care has improved in the next review cycle.

SENATOR MIKULSKI: In a GAO report regarding VA's actions on its 1989 Mortality Study, GAO said "Although VA has taken specific actions to follow-up on its mortality study, it has not used the information it obtained from individual medical centers to improve systemwide operations." How does your quality assurance program address the need to disseminate data to all medical systems?

ANSWER: Data from system-wide quality assurance studies, such as the review of surgical mortality and morbidity, are routinely sent to all medical centers. We are currently developing procedures for disseminating data from the occurrence screening and patient incident review programs as well as the planned external peer review program. Further progress will be made when the Quality Management Institute and Continuing Education Center is established. One of its primary charges will involve dissemination of data to the field, particularly the presentation of educational programs regarding the correction of frequently identified, quality related problems.

FACILITY DEVELOPMENT PLAN

SENATOR MIKULSKI: VA is mandated to prepare annually a 5-year Facility Development Plan. The last one submitted to the Committee (March 1990) included several projects slated for funding in 92 which are not in the 92 budget request. What is guiding your construction prioritization process -- it does not seem to be a 5-Year Facility Development Plan?

ANSWER: Budget restraint is the primary reason why projects planned for funding in FY 1992 in the January 1990 Medical Facility Development Plan (MFDP) were not included in the FY 1992 budget request. The Department requests funding for projects based on established priorities. Thirteen of the seventeen medical projects for which funding has been requested have been planned for FY 1992 or earlier. The other four projects were included because of increased priority being given to correction of seismic deficiencies, patient environment and nursing home care. Five of the FY 1992 projects were planned in the MFDP for 1992. Three projects were planned for FY 1991 but not included in the FY 1991 budget because of funding limitations. Five projects were earlier VA priorities and require additional funding to complete the work. In addition, some larger projects planned for 1992 in the MFDP were not included in the budget request so that they could be re-evaluated in an effort to meet the medical center's needs through less costly alternatives. Projects planned for FY 1992 in the MFDP but not included in the budget request will be considered in the development of future budgets.

NORTH CHICAGO VAMC

SENATOR MIKULSKI: Why should the Congress appropriate $61 million for the N. Chicago construction project when the Inspector General has just recommended a major mission change at the hospital?

The I.G. has recommended that surgery no longer be performed at N. Chicago. What will happen with the new clinical addition now under construction, which is costing the tax payer about $100 million?

ANSWER: Phase II of the project for N. Chicago addresses building code corrections and air conditioning for four buildings. This work includes asbestos, electrical, and mechanical corrections that must be completed on all areas of the buildings (a minor portion of which is occupied by the surgical suite and the single planned surgical ward) regardless of whether surgery is continued at the facility. Project work in the surgical suite and surgical bed ward corrects the noted code deficiencies and does not provide renovation or remodeling of the space. The vast majority of the space in the Phase II project will be occupied by an expanded and renovated nursing home care program, and intermediate medicine and psychiatric patients. Only 30 beds will be designated for surgery upon completion of Phase II of the work. Should surgery be discontinued, this ward would be used for other purposes such as long-term care.

Discontinuance of the surgical program would have insignificant impact on the clinical support and ambulatory care functions that are included in the Phase I project.

A decision to discontinue surgery at N. Chicago would not justify a scope or design change in the Phase II project. The project essentially corrects building code and asbestos deficiencies that must be corrected whether or not surgery is continued at the VAMC.

COST OVERRUNS

SENATOR MIKULSKI: A total of $82 million (18%) of the $450 million major construction budget request for FY 92 is for cost overruns or design changes. Last year Assistant Secretary Lewis came out with a report recommending reforms to the construction program in an effort to eliminate cost overruns. Are those recommendations being implemented? If so, why are we continuing to see expensive cost overruns?

ANSWER: We appreciate the opportunity to respond to your questions concerning our efforts to eliminate cost overruns. All the actions covered in Mr. Lewis' report have been initiated, including better developed early designs, tighter control over user requested changes, increased financial monitoring and improved project phasing. These and many other program improvements have delivered extremely positive results. Our bidding experience in FY 90 (an acknowledged volatile construction market) and FY 91 to date has been very encouraging. During this period, we opened bids on 37 projects totaling $496,610,000. Of this one-half billion dollars of work, only two projects required Congressional reprogrammings totaling $13.3 million (Perry Point, MD and Pittsburgh, PA) or 2.7% of the total value bid. A third project (Beckley, WV) is being repackaged and rebid in an attempt to obtain more favorable bids. This cost control record is favorable for this period.

The $82 million requested in the FY 92 budget covers deficiencies in six older projects that were submitted in fiscal years 1982 - 1988. The designs of those project budgets were only about 10% complete when submitted for Congressional approval. Our current practice, instituted since the beginning of FY 91, is for designs to be 35% complete when submitted in a budget. This design level ensures that the project has satisfied the user's needs, and leads to a much more accurate cost estimate in the budget. The lower level of design certainty (10%), coupled with far less controls on user requested changes during design, were the prime contributors to the insufficient budgets of those six projects.

Secretary Derwinski's policy on user requested changes was issued April 30, 1990. This established effective centralized controls on all user requested changes of $50,000 or more by elevating the approval level to the Assistant Secretary for Acquisition and Facilities. This kind of control was not exerted on the original designs of these six older projects.

COST ESTIMATES

SENATOR MIKULSKI: VA has begun to prepare cost estimates when projects are 35% design developed. In the past, estimates were prepared when projects were 15% design developed. Has the new system improved cost estimating? At what point does industry typically prepare cost estimates?

ANSWER: VA has begun the process of submitting Major Projects for construction funding at the end of "Design Development". This "35% completion" point corresponds to the industry-wide and American Institute of Architecture standard for Design Development. Our projects have not passed through all of the changed process and into bidding; however, our discussions with industry leaders and other agencies make us confident that this method will improve cost estimating.

SENATOR MIKULSKI: What else are you doing to improve cost estimating?

ANSWER: We have recently purchased a computer software estimating package. To provide speed and consistency in our estimates we are planning a consultant study of our cost management program, comparing it to others', and making recommendations for further improvement.

STATUS OF PROJECTS FUNDED BUT NOT AWARDED

SENATOR MIKULSKI: Contracts for 17 projects funded as long ago as 1984 have not yet been awarded. What is the total dollar amount of these projects and why aren't these contracts going out?

ANSWER: The total dollar amount of these 17 projects is $314 million. The status on each project is listed below:

- Atlanta, GA - Clinical Addition and Parking, Phase II. Phase I, the Multi-level Parking Deck, was awarded in December 1989 and is scheduled for completion in August 1991. Phase II, the Clinical Addition, has experienced some delays in completing the construction documents. A construction contract award is now anticipated for August 1991, with a construction completion date of December 1993.
- Beckley, WV - Clinical Addition and Alterations. Bids were opened on this project in October 1990; however, the low bid exceeded the budgeted amount and no award was made. The project is being repackaged and will be rebid.
- Brooklyn (St. Albans), NY - Modernize Kitchen and Dining Area. This project was originally conceived as a conventional kitchen, but was changed to utilize the cook-chill technology with expansion of production to include the VAMC's in Brooklyn, Manhattan, Northport and the Bronx. The change to cook-chill and the increase in production capacity created the delay in awarding this construction contract. The funds needed to implement this change are requested in FY 1992.

- Calverton National Cemetery, NY - Develop 90,000 Gravesites.
This project was identified as a competitive SBA (8a) set aside and bids were opened during FY 1990. SBA determined the low bidder to be ineligible. A court hearing is scheduled to determine whether the SBA determination was procedurally correct.
- Chicago(WS),IL - Fire & Safety/Patient Privacy. This project has design completed and bid documents are being prepared; however, insufficient funding prevented the award of this project. Additional funding has been requested in FY 1992 to allow this award.
- Chicago (WS),IL - Renovate Buildings 11A & B.
Insufficient funding prevented the award of this project to the full scope. Additional funding has been requested in FY 1992 to allow this award.
- Cleveland, OH - Fire & Safety. We have not been able to reach agreement with the SBA 8(a) contractor selected by the SBA for this negotiated construction contract. Negotiations are ongoing. If we cannot make an award within the available funds, we will need to reduce scope or obtain a reprogramming of funds.
- Dallas, TX - Clinical Addition/Renovation of Bldg. 2 and SCI. This project was originally envisioned as a major project with an estimated cost of $314 million. In light of the limited budget resources, a decision was made to reassess the total needs at this facility. This reassessment is currently ongoing. A design contract will be awarded in FY 1991 for the energy center, utility tunnel and a 30-Bed long term SCI building while the reassessment is going forward.
- East Orange, NJ - Relocate/Consolidate Research. This project was designed in 1986 and at that time insufficient funds were available to make a construction award. The project was reprogrammed for 1990; however, interim ongoing research programs require the project to be redesigned. Construction award to an 8(a) contractor is anticipated for September 1991.
- Leavenworth, KS - Replace Domiciliary/Dietetics and Chiller Plant. The project is presently in the schematic design stage and it is expected that design development (preliminary plans) will be completed in early 1992.
- Montrose,NY - Renovate Building 15. This project was identified for the SBA (8a) program and VA began the procurement process in May 1989. The VA was unsuccessful in awarding a contract either through the competitive 8(a) procedure or through the negotiation process. The project was removed from the 8(a) program and opened for unrestricted competitive bids in September 1990 with an award being made in January 1991.
- Newington, CT - Medical Center Modernization. This project was funded in FY 1989 at a total cost of $59 million. In October, 1989 the VA decided to change the mission of this facility to focus on long term care. The project has been modified to delete surgery and inpatient substance abuse. The Department is also considering other changes in the project.

- Pittsburgh, PA - Replacement Medical Center, Phase II. The low bid exceeded the budgeted amount by approximately $10 million. A cost limit increase was processed and an award was made on April 21, 1991.
- Gainesville, FL - 290 Bed Psychiatric Building & Parking Garage. A decision was made to reassess the total psychiatric bed needs for the state before going forward with this project and the project has been placed on hold.
- Saginaw, MI - 120-bed Nursing Home Care Unit. Design of this project was not completed in FY 1990 which delayed the award of this contract. Bids were opened in April 1991. We are making a determination of responsiveness by two of the bidders.
- San Diego, California - Non-structural Seismic Corrections (Phase III). This project was delayed due to extensive, unforeseen asbestos abatement requirements. We now plan to remove asbestos and seismically upgrade one of the roughly 30 sections of the building as a test phase. This test phase will be used to analyze cost, time and VAMC operational impacts prior to starting the remaining work. The test phase will be awarded in August 1991.
- Waco, TX - Renovate Building 91 and 92 and Chiller Plant. This project was identified as a partial SBA 8(a) set aside. The demolition phase was to be awarded to an 8(a) contractor; however, the firm provided by SBA was unable to obtain bonding which caused the delay of this award until FY 1991.

PALM BEACH, LAKE CITY AND SALISBURY NURSING HOMES

SENATOR MIKULSKI: Congress provided funding in FY 91 for two 120-bed VA nursing homes: $10.2 million for Palm Beach, Florida and $8.9 million for Lake City, Florida. The FY 92 budget included $11.5 million to convert a building in Salisbury, N.C. to a nursing home. Why does the cost of this proposed renovation project exceed the estimated cost of building the two new nursing homes of the same size approved in the FY 91 budget? Were available state and community nursing home beds considered in developing the plans for the nursing home in Salisbury?

ANSWER: The Salisbury project includes not only the renovation of nursing home beds but also administrative offices for engineering service and building management service and additional storage space.

The latest nursing home care needs assessment revealed a need for 413 beds in the Salisbury primary service area. The VA cannot meet this need solely with community beds, as there is a limited availability of NHCU beds in the Salisbury area.

BOARD OF VETERANS' APPEALS

SENATOR MIKULSKI: GAO found in 1990 that it took the Board of Veterans' Appeals between 172 and 623 days to process an appeal. Has VA identified the reasons for these substantial delays in the appeals process, or the reasons for the wide variations in processing time among regional offices?

ANSWER: The 172 to 623 day appellate processing time range reported by GAO in their 1990 study refers to their findings as to how much time individual VA regional offices require to process appeals before these appeals ever reach the Board of Veterans' Appeals (BVA) for a decision by that organization.

The Veterans Benefits Administration (VBA) has undergone many efforts to improve the time frame for processing appeals. Two major examples include: 1) Implementation of an interim program to assist regional offices to expedite and improve their appeals process and 2) Revision of VBA's appeals control system.

VBA's interim program focuses on providing regional offices with training information as well as statistical information on processing time of appeals. Regional offices use this information in their local analyses to detect and correct any deficiencies in the processing steps for which they have immediate responsibility.

VBA is also revising its appeals control system which is scheduled to be on-line and operational in August 1991. This revised system will have major advantages. For example, the system will have the capacity of receiving automated data from VBA's benefit system which will eliminate redundant input of data and associated inaccuracies. The system will also allow for better access and retrieval of detailed information which will help managers in adjudication track and monitor various stages in the appeals process.

The actual BVA processing time requirements, as reported by GAO in their study, were 136 days in FY 1988, 167 in FY 1989, and approximately 190 days during the early part of FY 1990.

SENATOR MIKULSKI: What has been done to reduce waiting time for appeals decisions? Your budget (p. 24-13) shows that average response time will actually increase by 29 days in FY 92 to 179, despite a declining workload. Why?

ANSWER: A major initiative was undertaken by BVA in FY 1990 with the objective of reducing BVA response time by increasing staff productivity. Through this initiative, BVA was able to successfully reduce their response time from a high of over 200 days at the beginning of FY 1990 to 152 days by the conclusion of FY 1990. Some of the specific measures taken to achieve this reduction are as follows: increased use of reduced format decisions entailing decreased recitation of evidence; increased use of two-Board Member signature decisions, as provided through the authority of 38 U.S.C. 4002(a)(2)(A); reorganization and streamlining of BVA's Administrative Service operations; and increased use of automation tools, particularly in the administrative operations of the Board. BVA projects that its response time will remain at around 150 days during FY 1991 and will rise to around 179 days by the conclusion of FY 1992. This projected deterioration in timeliness results from the six percent reduction in BVA staffing for FY 1992. No reduction in appeal receipts has been projected for BVA in FY 1992. We estimate that, as in FY 1991, BVA will receive 45,000 appeals in FY 1992. Other changes in BVA total workload composition as reported in the BVA Program Highlights portion of the 1992 submission are solely the result of 1990 and 1991 reductions in the backlog of appeals already pending at BVA. This does not indicate any decline in anticipated appeal receipts by BVA.

STRATEGIC PLANNING/MISSION COMMISSION

SENATOR MIKULSKI: Why have you developed an internal process (the "National Plan") to recommend mission changes when you tasked the Mission Commission with that very job? Will it be any easier for those very tough decisions to be made through this internal process than it will be for the Mission Commission? How will you incorporate the Mission Commission's recommendations into the National Plan?

ANSWER: Although there is some overlap in the planning required for the National Plan and the Mission Commission, the target year for the Mission Commission's planning is 2010 and the National Plan will cover the years 1994-1998. Planning for the long-term future will be addressed by the Commission, and planning for the short-term (next five years) will be addressed by the National Plan. Decisions about mission changes will be made with input from Central Office and field personnel using various analyses about workload, programs, and resources. The analyses should identify gaps, overlaps, or imbalances in programs and services based upon veteran needs and demographics, indicating the necessity for shifting resources and to plan and direct adjustments, additions, or deletions to the missions and the programs of the facilities. Because the Commission's report will be targeted at a year beyond the realm of the first National Plan, future versions of the National Plan will use the Commission's recommendations as input into the necessary mission analyses.

SENATOR MIKULSKI: When will the Mission Commission report it recommendations to you, and will those recommendations be incorporated into the FY 93 budget?

ANSWER: The Commission on the Future Structure of Veterans Health Care (hereinafter the "Mission Commission") will submit its final report to the Department not later than September 30, 1991. The Commission's recommendations, which are pointed to the planning horizon year 2010, most likely will not affect the formulation of the fiscal year 1993 budget (a process which has already begun within the Department). It is difficult to predict, before the fact, how we will address the Commission's recommendations. However, since the Committee's recommendations will be released during the formulation of the OMB budget submission, any changes, however limited, may be included in the fiscal year 1993 budget.

SENATOR MIKULSKI: Do you expect the Commission to recommend major changes in the status or mission of individual medical centers?

ANSWER: In its deliberations, the Commission concluded the task of identifying individual facility-level changes in mission or program would at best be impracticable and probably impossible. Given the processes which would have to be managed in attempting to identify the nature and degree of changes at the local level and the general improbability of predictions in health care, as well as the rate of technological advance in medical practice, the Commission decided changes at the facility level should not be attempted by this Federal Advisory Committee.

Instead of taking a prescriptive approach to the issue of mission and program change, the Commission has chosen to endeavor to describe to the Department an approach to VA health care and systems planning based on the needs of the veteran population the Commission envisions in 2010. The Commission is attempting to take account of the demographic projections of veteran population change to come, the probable health care needs of the population at that time, and then to suggest a methodology to the Secretary and Chief Medical Director which, if implemented, will provide a veterans' health care system to meet the anticipated needs. Our early work suggests such a methodology would predict substantial shifts in program and mission as the methodology is implemented over time, involving bed programs and other mechanisms of care. Assuming approval of the Commission's report, how such changes are to be managed is a matter for VA officials to determine, rather than a role for the Commission.

SENATOR MIKULSKI: Are any major construction, renovation, or equipment purchases being delayed until the Secretary can review and act on the Commission's recommendations?

ANSWER: In a few instances, suggestions such as this have come up; however, the Commission has encouraged the VA to move forward on operational decisions as if the Commission does not exist. It needs to be recalled that the Commission's planning horizon is the year 2010, and we assume the product of the Commission's work will be considered in the light of iterative, evolutionary change, thus, most if not all the Commission's recommendations should have little if any effect on current operations or near-term planning.

SENATOR MIKULSKI: Has the Commission been coordinating with the other commissions studying the future structure of the American health care system?

ANSWER: The Commission has kept pace with activities of other commissions studying health care. We plan to invite the Administration of the Health Care Financing Administration to a future meeting; the Chairman of the Paralyzed Veterans of America, Inc. "Strategy 2000" Committee will be meeting with the Commission in June; we have reviewed the report of the Dole "Coal Commission" (and one of our Commissioners, Mr. Walter McNerney, was a member of the Coal Commission). We have studied the recommendations of the Pepper Commission. Thus, we feel confident that we are keeping abreast of others' efforts to study the American health care system.

SENATOR MIKULSKI: What effect would adoption of some form of national health insurance have on the VA system? Is the Commission considering ways to integrate VA into a national health insurance program?

ANSWER: How, or whether, the VA system would fit into a national health insurance plan, or a universal access scheme, is unclear. At this juncture, no preeminent plan or idea has emerged, and VA's role is undeveloped. We understand the recent introduction of H.R. 1300 (the Russo bill) leaves the VA without a role. This is typical of most plans we have seen. If national health insurance provides everyone an equal access to basic care (in our opinion, the Medicare catastrophic plan did not, and the Russo bill would not), then it could be argued that VA programs are not "essential" to veterans. However, the VA has shown over time that it offers services generally not available to wide sections of the population, e.g. mental health services, spinal cord injury services, rehabilitation services, among a number of others. It could also be argued these VA services are provided from within a core of general medical/surgical resources and technologies without which the VA specialties could not be successfully sustained. Thus, a case could be made for the VA to participate as a basic provider in a broader program.

The national health insurance debate is unsettled today and will be resolved in an arena much larger than health care to veterans or any other categorical eligibility.

LOCALITY PAY FOR NURSES

SENATOR MIKULSKI: VA's budget includes $32 million for locality pay for nurses, which will be effective April 1, 1991. What problems do you expect to experience with the locality pay system? What do you propose to do about the inequities that may result (for example, the Martinsburg, WV hospital is 1 mile from D.C. locality pay area, making it even tougher to recruit nurses)?

ANSWER: Some of the problems are:

(1) Inability to obtain salary information generally from hospitals in the local labor market area;

(2) Inability to obtain salary information for nurse anesthetists because hospitals in the local labor market use contract anesthesiology services. Contract nurse anesthetists are not employees of the hospital and therefore, not an acceptable match for salary survey purposes;

(3) Disappointment on the part of nurses at facilities where survey results find VA nurse pay exceeded community rates, and the schedules were reduced accordingly. Even though on-board employees will receive pay retention, affected employees could find this hard to accept.

Under VA policy, the Washington, DC, minimum Local Labor Market Area (LLMA) is defined as the Washington, DC-MD-VA, Metropolitan Statistical Area (MSA) and the Martinsburg, WV, LLMA is defined as the Hagerstown-Martinsburg-Chambersburg, Federal Wage System survey area.

Martinsburg and Washington VAMCs are in separate but adjacent LLMAS; however, VA policy allows facility Directors to expand their LLMA into contiguous counties provided that a determination is made that the minimum survey area does not adequately reflect the LLMA for the occupation being surveyed. In support of this determination, there must be a justification that clearly supports the expansion based on the location of competing non-VA health care facilities, geographical features of the area, transportation facilities for employees, and commuting patterns of VA employees.

RECRUITMENT/RETENTION

SENATOR MIKULSKI: In the past several years VA has closed over 3,200 beds due to shortage of nurses. As I understand it, VA is testing several methods to improve nurse recruitment, such as eliminating the practice of rotating shifts in certain hospitals. What measures and indicators will you use to determine the success of these projects?

ANSWER: a. Shift Rotation Pilot. A qualitative evaluation was undertaken in February 1991. The evaluation was limited to 10 of the 26 VA medical Centers participating in the pilot program. Numeric data on nursing resources, recruitment, and turnover were obtained by questionnaire. Each hospital was also visited by an evaluation team that conducted systematic group discussions with hospital management and nursing staff. Three (3) factors were considered most important to the potential for this program to meet its primary objective of reducing shift rotation. These included the manner in which the pilot program was implemented, the ability of the hospital to recruit staff nurses, and the ability to retain nursing staff. Measures and indicators that will be utilized to determine the success of this project include **quantitative measures**, i.e., amount of sick leave, overtime, unplanned leave, compensatory time, hours of off-tour rotation; and **qualitative measures**, i.e., improved morale and staff satisfaction.

b. Upward Mobility Programs. Various "grow-our-own" programs provide financial assistance to employees pursuing education in selected, shortage-category occupations, including nursing. Historical data will be reviewed to determine overall if we have been successful in increasing the number of registered nurse personnel over previous years. Additionally, and as important, historical data will be reviewed to determine the effectiveness of our retention of the new nurses. Currently, VA Medical Centers submit quarterly reports. These reports will be used as part of the program evaluation.

c. Expand the Nurse Labor Supply Program. This pilot program was established to aid in the expansion of the general supply of nurses in the work force. Under this program, a qualified VA nurse is appointed, without compensation, to a faculty position at an affiliated school while occupying a position at the VA. Reports thus far indicate that a total of 199 additional students have been added to nursing school enrollments as a result of this initiative. In addition to increased student enrollment, VA Medical Centers receive various benefits from the schools including, for example, free in-service courses, guaranteed student slots, and free continuing education. More importantly, a significant number of nursing students have requested clinical rotations at our medical centers due to the presence of VA faculty members on campus.

SENATOR MIKULSKI: Has VA determined whether the benefits of some of the pilot projects outweigh the costs?

ANSWER: Shift Rotation Pilot. Data available to date on the elimination of shift rotation pilot is generally insufficient to determine any definitive cost benefits.

Upward Mobility Programs. We are nearing the end of the second year of the concept to "grow-our-own" registered nurses under our Career Ladder Associate Degree Program. We also added an additional program during FY 91, the Employee Accelerated RN Program (EARN). Early results and interest in these programs has been outstanding. However, detailed cost analysis has not been accomplished at this time due to the infancy of the programs. It is anticipated that these "grow-our-own" programs will bring VA a total of 600 new registered nurses by September 1991, with obligated service of 3 to 6 years.

Expand the Nurse Labor Supply Program. A detailed cost analysis has not been accomplished at this time due to the infancy of the program.

SENATOR MIKULSKI: What plans does VA have to institute these programs on a systemwide basis?

ANSWER: Shift Rotation Pilot. The first program evaluation (conducted 5 months after the program began) of the elimination of shift rotation was very positive. Most hospitals reviewed reported a number of apparent improvements which they attributed, at least in part, to the pilot program. Foremost, the fixed nature of the evening and night shift program positions makes these very attractive to both existing staff and new recruits, helps to stabilize the day shifts by reducing rotation, and improves workload for off-tour staff. Secondary effects include increased morale and job satisfaction. Those on fixed shifts like the predictability and consistency of these positions. Staff on day tours who now rotate less are gratified as well by the increased stability of their position. Based on these positive factors, we will consider funding additional efforts to reduce shift rotation during development of the FY 1993 Appropriations Request.

Upward Mobility Programs. The demand for resources to support available employees to enter these programs at local facilities far exceeds the resources that are available. For example, a survey revealed that over 700 current employees could complete their academic registered nurse requirements by September of 1992, if they were financially supported to attend school on a full-time basis. We are only able to support 300 of these employees. Therefore, the allocation to facilities has been based on highest need versus the number of applicants available.

Expand the Nurse Labor Supply Program. The 19 VA Medical Centers currently participating in this pilot program will receive funding to continue through FY 92. In addition, we hope to expand this pilot to 8 additional VA Medical Centers.

SENATOR MIKULSKI: Isn't the Health Professional Scholarship program one of VA's most important methods of recruitment? If so, why aren't you requesting an increase for this program?

ANSWER: The Professional Scholarship program continues to award scholarships to over 500 participants annually. In addition in FY 91, approximately 200 awards will be given to individuals under the Reserve Member Stipend program. All program participants have a required service obligation to serve as a full-time employee in a VA Medical Center for a period of one year for each year of support.

Current funding levels will allow the program to continue to award approximately 700 awards annually. Due to budget constraints and other high priority recruitment and retention needs, this program has not been increased.

SENATOR MIKULSKI: VA's research program is key to recruiting, educating, and retaining highly qualified physicians. VA has been able to fund less than half of all approved research proposals. If recruitment and retention is a priority, why aren't you providing an increase for research?

ANSWER: There is a solid consensus among VA officials, and indeed this position was reaffirmed by the Advisory Committee on Health Research policy, that the research program is critical to recruiting, educating, and retaining highly qualified physicians. In an environment of limited overall resources, no increase over the prior year's research funding level was possible. The Committee's recommendation was not released officially until after FY 1992 budget decisions were made by VA and OMB.

RESEARCH

SENATOR MIKULSKI: Secretary Derwinski appointed a Blue Ribbon Commission last year to review the VA research program. Last year, Secretary Derwinski said it was not requesting any increase for research while he awaited the results of the panel's findings. The panel issued its report in January, of which recommended $280 million for the VA research budget in FY 1992. Yet VA is not requesting any increase over FY 1991. Why? In what way does your budget request reflect the panel's recommendations?

ANSWER: The Department's request to OMB for the medical and prosthetic research appropriation for fiscal year 1992 was essentially the same as that recommended by the Advisory Committee. In the final overall process, other priorities took precedence.

SENATOR MIKULSKI: VA has said it plans to be a leader in geriatric medicine (House hearings. p. 27). Yet only 10% of VA's research is devoted to studies related to aging (Sen. hearing p. 644). Why is this so low, given that about 26 percent of all veterans are age 65 or older, and that the percentage is increasing?

ANSWER: While only 10% of VA's research is narrowly classified as "Aging Research," this by no means reflects the total fraction of our research portfolio which is intimately related to diseases of the elderly. Thus, for example, research on cardiovascular disease, cancer, stroke, Alzheimer's disease, degenerative joint disease, and many other conditions is not classified as "Aging Research." These conditions, however, are major causes of morbidity and mortality in elderly veterans (far more so than in younger veterans), and studies in such areas are likely to benefit large numbers of veterans as they grow older.

SENATOR MIKULSKI: One of the recommendations contained in a January 1991 report VA prepared on the long-term care needs of the veteran population was that VA research program should fund innovative pilot programs that encourage and support non-institutional long-term care. What are VA's plans in this area?

ANSWER: Under the authority of Public Law 101-366, VA intends to establish a pilot program for medical, rehabilitative, and health-related services to certain veterans who are in need of nursing home care. VA plans to establish 20 programs over the next five years to test the effectiveness of providing in home health evaluations, and to provide a plan of care which would include adult day health care, respite care, home health services, and health-related services (including homemaker and home health aid), under a system of case management. The purpose of the pilots will be to delay or obviate nursing home care for which the patient qualifies and could be appropriately placed without these community-based services. The distinguishing feature of the pilots is that they will provide an individualized plan for the patient in need, with the provision of elements of existing long term care programs, supplemented by health-related services and coordinated by a VA case manager.

If funding is available, pilots will begin in FY 1993 and first reports of evaluation will be available in FY 1995.

SENATOR MIKULSKI: How much of VA research is directed toward treatment of service-connected disabilities as opposed to research on health problems which affect all Americans?

ANSWER: Although our data systems do not permit a quantitative reply to this question (nor do we believe that definitional problems could be solved to make it possible to collect such data), we believe that the great majority of VA research is related to the treatment of service connected disabilities. The spectrum of service connected disabilities is broad, as is the range of disease addressed by VA researchers. Given that the great majority of VA researchers are physicians whose research interests are shaped by their clinical responsibilities, we are confident that most of our research efforts are directly relevant to service connected disabilities.

NURSING HOME CARE

SENATOR MIKULSKI: According to the veterans service organizations' Independent Budget, the average daily census of VA-sponsored veterans in all types of nursing homes declined from 32,115 in 1988 to 30,261 in 1990. They claim that this decline resulted from inadequate funding of the nursing home program and illogical entitlement rules. Do you agree with the service organizations' assessment? If not, what is wrong with their assessment?

ANSWER: Between 1988 and 1990 the average daily census (ADC) in the VA Nursing Home Program increased by 4 percent and the ADC in the State Home Program increased by 9 percent. The census in the Community Nursing Home Program (CNH) declined by 32 percent. This decline occurred when CNH funds were allowed to be used for other purposes in FY 1989 due to budget constraints. The Department intends to re-build the CNH Program and the program will remain a vital component of VA's institutional long-term care strategy.

The Department recognizes the unnecessarily complicated nature of the current eligibility structure, particularly for long-term care programs. The Department is actively studying options that address this issue.

SENATOR MIKULSKI: What is the extent of waiting lists for VA nursing home care? Are veterans remaining unnecessarily in hospitals or being discharged to their homes too early because of inadequate funding of nursing home programs? If so, how many veterans are affected and what is the extent of the funding deficiency?

ANSWER: There were 716 veterans reported on the waiting list for VA Nursing Homes at the end of February 1991.

There is no evidence to suggest that patients needing nursing home care created unnecessary hospital days or were prematurely discharged to their homes. Within the environment of constrained discretionary spending, VA medical centers have placed greater emphasis on alternative placement options for veterans, including Medicare and Medicaid.

LONG-TERM CARE

SENATOR MIKULSKI: One of the barriers VA faces in providing a continuum of care, is that VA is mandated to provide only inpatient care. Outpatient care is considered "discretionary". This means if a VA hospital is underfunded, it won't provide preventive health care. Because of this, many indigent vets will wait until they are sick enough to require inpatient care, which is far more expensive than outpatient care. What does VA propose to do about this? If the current system was changed, would it help alleviate staffing shortage problems?

ANSWER: The provision of outpatient care for service-connected conditions is mandatory if staff and facilities are available. The VA is currently reviewing eligibility rules with a goal of making a proposal to bring the rules in conformance with current health care delivery realities.

SENATOR MIKULSKI: In last year's hearing (p. 616), Deputy Secretary Principi stated that his hope was to have a Home-based Health Care program, a Hospice care program, and preventive health care program in every VA hospital. What is the status of that effort and how will VA accomplish that goal? How does the FY 92 budget reflect that goal? Has VA considered offering in-home health assessment, to prevent or delay hospitalization and institutionalization?

ANSWER: We are continuing to emphasize non-institutional programs for aging veterans by planning for the expansion of the HBHC (Hospital Based Home Care) program. This plan includes additional HBHC programs as well as the enhancement of some existing programs. The VA's hospice program is presently under review. With the increase in VA's geriatric population, we are examining a generic approach to the care of the dying patient. This approach will provide the geriatric patient and family with the ability to access hospice like care should they so desire. There are no budget initiatives for these programs in FY 1992. Staff from HBHC teams do provide in-home health assessments to prevent hospitalization and will continue to emphasize this aspect of care.

VA has had a Preventive Medicine (PM) Program since 1985. Each VA facility has a PM Program and a PM Facility Coordinator. There is a PM Field Advisory Group and a National PM Program Coordinator at Central Office. While much has been accomplished, there is considerable interest in expanding PM.

SENATOR MIKULSKI: The Independent Budget notes that "healing medicine is more prestigious than sustaining medicine." How will the Department work to change the medical community's mentality to regard long-term care as equally important as inpatient care?

ANSWER: VA will continue to expand both clinical and educational programs for long term care. VA has developed a Geriatric Fellowship program to develop a cadre of physicians who are committed to clinical excellence and to becoming leaders of local and national geriatric medical programs. These fellowships expanded from 12 sites to 34 in 1990. As of June 1990 there were 234 alumni from these fellowships. In 1990, eight VA medical centers were selected to become training sites for fellowships in geriatric psychiatry. The American Board of Psychiatry is currently developing criteria for ACGME accredited training in geriatric psychiatry. Upon activation of the ACGME process, VA fellowship programs will be in a position to serve as models for others. In 1990, 28 master's level geriatric clinical nurse specialist student positions were supported and two VA Gerontological nurse fellowships were funded at the doctoral level. A special priority for geriatric education and training has been recognized in the allocation of associated health training positions and funding support to VA medical centers hosting Geriatric Research, Education and Clinical Centers (GRECCs) and to VA medical centers that offer specific educational and clinical programs for the care of older veterans. The increasing number of clinical programs for the aging and the increasing number of education programs in geriatrics will continue to stress the importance of long term care. Three additional GRECCs and 35 Geriatric Evaluation and Management units will be funded in FY 1991.

EQUIPMENT

SENATOR MIKULSKI: The Veterans' Independent Budget claims that many VA medical centers are using outmoded diagnostic equipment which could yield inaccurate results and delay patient assessment. In late FY 90, according to the Independent Budget, the estimated cost to replace outdated equipment was $1.2 billion. Is their assessment correct? What diagnostic equipment has VA designated as having reached the end of its useful life?

ANSWER: The Veterans Health Services and Research

Administration has recently validated the level of the equipment backlog. After thorough review at each VA medical facility, directors certified the accuracy of the corrected replacement equipment list. The result of this validation indicates that the backlog is expected to be approximately $864 million at the start of FY 1992. In the 1992 budget request a total of $155.2 million will be applied to replacement requirements. Because of the magnitude, several years of substantive funding will be required to reduce the backlog to a manageable level. Using this recently validated data, future budget requests will establish goals for a planned reduction of the backlog over a reasonable number of fiscal years.

The replacement equipment inventory includes all kinds of equipment used at a VA medical center. Over 75% of this inventory is medical and laboratory equipment.

COST-RECOVERY EFFORTS

SENATOR MIKULSKI: VA is authorized to recover from insurance companies the cost of care provided to nonservice disabled vets and for the treatment of nonservice-related health problems of service-disabled vets. This year, VA began increasing its efforts to bill insurance companies for veterans medical care. What is the status of that effort? How much has been collected from insurance companies to date? Is that in line with earlier projections of $500 million per year?

ANSWER: The VA has made significant progress in insurance billings and collections. As of March 31, 1991, the VA had collected $103.1 million in insurance payments. This compares with $58.9 million at the end of March 1990. Since October 1990, the VA has increased its daily collections from $682,000 per day to over $1,000,000 per day. At the current rate of collection, the VA will realize at least $225 million this FY. The overall insurance goal for this year is $278 million, not $500 million. The VA projects increasing levels of collections each year through FY 1996 when we expect to exceed the $500 million goal.

SENATOR MIKULSKI: What problems have been experienced as a result of attempts to increase collections from insurance companies?

ANSWER: Insurance companies consistently pay only a percentage of the bills submitted for reimbursement; payment in full is not common practice. The reasons for reduced payment are wide and varied and often depend on the type of covered services of the individual insurance policy. The major problem still being encountered is obtaining payment from Medicare supplemental insurance policies. These reimbursements normally equal the current Medicare deductible. Many Medicare supplemental carriers deny all reimbursements based on the argument that they are unable to determine the amount of their financial liability or coverage. VA is pursuing litigation with several insurance companies on this issue.

RESOURCE PLANNING METHODOLOGY

SENATOR MIKULSKI: Please describe your efforts to develop a resource methodology, how it will work, its impact on construction planning, and when the new system will be operational?

ANSWER: VHS&RA has initiated a new Resource Planning and Management (RPM) process which will be introduced as a pilot during the FY 1992 budget cycle, used for allocations in FY 1993 and considered in the budget formulation process in FY 1994. Before RPM is used as a resource allocation system for VA medical centers, VHS&RA will conduct a simulation to field test the process to assess the impact of the new system prior to implementation. The RPM simulation should protect against unintended negative impacts upon medical care programs and quality of medical care to veterans. As part of the RPM development process, there will be a close monitoring of major program performance and evaluation of the achievement of VHS&RA's RPM plans and objectives.

The goal of RPM is to achieve comprehensive integration of strategic and operational planning (including construction), budgeting and operational management of the VA health care system. The following are the major components of the new RPM process which has been initiated for the FY 1992 budget implementation cycle:

- o patient-based allocation groups where patients are identified by unique social security number into a single clinically relevant group based on the services received and resources consumed;

- o a VHS&RA National Health Care Plan;

- o a budget for each medical center developed by forecasting costs and workload from the medical center's own characteristics and the demographics of its service area.

RPM will include a management interactive process to evaluate high cost outliers and consider facility level adjustments. The RPM process will eliminate the retrospective approach of the Resource Allocation Methodology (RAM) by introducing a prospective process of forecasting cost and workload, thus eliminating the problems created by basing funding on 2-year old workload data.

Because of the various time cycles for the target allowance, planning, and budget processes, it will be FY 1994 before all these can be linked and synchronized for the congressional budget process. For the FY 1993 budget allocation process, each facility will then receive funding based on its future projected work, consistent with its mission.

SENATOR MIKULSKI: Will the new method address the need to improve control and management of the prosthetics program, ensuring that medical centers set aside adequate funds for prosthetic appliances?

ANSWER: The Resource Planning and Management (RPM) system is a comprehensive management system for VHS&RA's workload and resources, including prosthetics. However, to respond to the concerns about the Veterans Health Services and Research Administration (VHS&RA) prosthetics program, VHS&RA has initiated actions to improve the prosthetics program.

Specifically, VHS&RA:

--has installed a centralized funding program for FY 1991 with a strong oversight by VA Central Office;

--is establishing new Prosthetics and Sensory Aids Services at 19 VA facilities in FY 1991, with 28 more scheduled for FY 1991;

--has installed a vigorous program review schedule, with 48 site visits for FY 1991;

--has improved reporting of delayed prosthetics orders, with timely follow-up by Regional Offices;

--has funded additional trainee positions to bring more representatives into the system;

-- will conduct a national training program for key staff from the field for FY 1991.

INSPECTOR GENERAL

SENATOR MIKULSKI: The Inspector General, in a letter dated March 7, 1991, has indicated that the budget request for his office is inadequate. He believes $34.5 million is required in FY 92. Do you agree? If so, will you submit a budget amendment?

ANSWER: I agree that some Office of Inspector General (OIG) functions are not funded at optimal levels, including medical care quality assurance reviews, VA procurement/contract audits and investigations, audits of VA's-financial statements, and expansion of Hotline and audit followup capabilities. However, the FY 1992 budget request for the OIG represents an equitable distribution of the total funding made available to the VA during the preparation of the budget. Given the current fiscal climate, a budget amendment will not be submitted.

SENATOR MIKULSKI: The Inspector General has announced that he plans to hire an assistant I.G. for Medical Affairs. Why does VA need this position when there is already a Medical Inspector? What different functions will that individual perform? Shouldn't the funds be used to hire staff in areas which don't duplicate a function currently being performed?

ANSWER: The functions of the Medical Inspector and the new Assistant Inspector General for Healthcare Inspections are complementary, not duplicative. The Medical Inspector reports directly to the Chief Medical Director and serves as the Department's internal healthcare investigative organization. Much of the Medical Inspector's work is concentrated on individual cases of potential patient care problems. The Assistant Inspector General for Healthcare Inspections reports directly to the inspection organization carrying out the Department-wide review, oversight and evaluation of medical care quality assurance functions assigned to the Office of Inspector General by Public Law 100-322. The Inspector General's healthcare reviews (such as those recently performed at VAMC North Chicago) tend to focus on broader, systemic quality of care and quality assurance issues. Inspector General reports on these issues are provided to the Department and the Congress. The VA essentially has a three tiered healthcare review system. The first tier is performed locally by medical center management officials, the second tier is performed by Central Office VHS&RA management officials including the Medical Inspector, and the third level is the independent evaluations performed by the Office of Inspector General.

SENATOR MIKULSKI: How many hospitals are given a complete inspection each year? How often are hospitals inspected? If deficiencies are found, how soon after they are detected does VA send its IG team out to see whether improvements have been made?

ANSWER: The Office of Inspector General reviews the VHS&RA quality assurance program both from an audit and healthcare inspection perspective. The OIG's Assistant Inspector General for Audit staff conducts in-depth audits, to include quality assurance issues, of about one-third of VA's 172 medical centers each year. If these audits show indications of possible patient treatment or other related quality of care problems, the OIG's healthcare inspection staff is contacted for assistance while the audit is still on-going. The type of assistance would generally involve one or a combination of the following actions: (1) a review in headquarters of medical or other patient treatment records, (2) an on-site review by the healthcare inspection staff, or (3) an on-site review and/or medical record review by VA or non-VA physician consultants. At the conclusion of their work, the auditors, healthcare inspectors and physician consultants prepare summaries of their findings which may be included in one or more OIG final reports depending on the circumstances. Each OIG final report is tracked through the Department's follow-up system where corrective actions are monitored by the OIG until they have been completed. The OIG also performs periodic follow-up audits and inspections on significant issues.

CONTINGENCY PLAN

SENATOR MILKULSKI: The Persian Gulf conflict demonstrated the need for a VA medical system that is "fit for duty". VA's role in the Government Contingency Plan is a vital one. What problems did you find with the Contingency Plan? Have you corrected those problems so that the Plan will be "fit for duty" in the future should that be necessary? If not, do you intend to address them now that the immediate threat from Operation Desert Storm is over?

ANSWER: The attached paper provides an analysis of VA actions and assessment of problems encountered to prepare for receiving casualties of Operation Desert Storm.

SENATOR MIKULSKI: In addition to the immediate demand for treatment of active duty military, VA could, in a major ground conflict, face a surge in demand for prosthetics, spinal cord injury treatment and other long term medical care needs. Please describe how VA was planning to meet this surge in service-connected workload.

OFFICE OF EMERGENCY MEDICAL PREPAREDNESS (OEMP)

VA/DoD Contingency Plan

Operation Desert Shield/Storm - Lessons Learned

BACKGROUND

Legislation was enacted in May 1982 (Public Law 97-174) establishing the VA/DoD Contingency Hospital System as the primary backup to DoD in time of war or a national emergency involving military personnel. This legislative mandate had the effect of creating a fourth mission for the Veterans Health Services and Research Administration (VHS&RA).

The primary reason for establishing this backup hospital system was to provide staffed operating beds that could be used in an emergency without increasing DoD bed numbers, or as a stop gap measure while the DoD hospital system was expanding. During WWII, DoD had roughly 500,000 beds; the current DoD count is approximately 16,000 beds. Secretary Edward J. Derwinski announced on August 13, 1990, that the VA would maximize planning for full activation of the VA/DoD Contingency Plan if that became necessary, following Saddam Hussein's invasion of neighboring Kuwait.

CHRONOLOGY OF EVENTS

- August 7, 1990 - President Bush committed U.S. Troops to the Persian Gulf following Iraq's invasion of Kuwait on August 2, 1990.
- August 9, 1990 - VHS&RA Office of Emergency Medical Preparedness (OEMP) developed system-wide plans to treat potential Persian Gulf casualties exposed to chemical weapons (22 VAMCs were initially identified).
- August 12, 1990 - VA began testing its ability to respond if the VA/DoD Contingency Plan were activated in conjunction with Operation Desert Shield. The Emergency Facility Operations Center, located at VAMC Martinsburg, West Virginia, went on 24-hour operating status. VA began to collect 24- and 72-hour bed availability data on a daily basis.
- August 15, 1990 - Weekly, then later daily, communications between DoD and OEMP/senior VA officials was begun.
- August 22, 1990 - VA began collecting weekly military ready reserve mobilization impact assessments from each VA medical center in the system.

- September 1, 1990-January 14, 1991 - VA reduced bed availability reports to a weekly basis. All data collected was compiled manually. Note - New automated system was developed and put in place between December 1, 1990-January 15, 1991.

- September 19, 1990 - VA conducted a 3-hour video-teleconference to all 172 VAMCs on the "VA/DoD Contingency System". Focus was on how the system worked plus infectious diseases of the Middle East, chemical agent injuries, and combat and traumatic stress. The conference targeted VA administrative, clinical and support staff.

- October 12-14, 1990 - OEMP conducted a paper patient exercise and arrival simulations at 80 Primary Receiving hospitals and 79 Secondary Support Centers. VAMC Minneapolis ran their exercise for 30 days to identify clinical and administrative problem areas in their Contingency Plan. In addition, 25 VA Medical Centers ran live simulated patients through their respective systems.

- October 15, 1990 - To prepare the VA to receive Desert Storm casualties and to interface with the Air Force's aeromedical evacuation systems, OEMP developed a geographic "Hub and Spoke" plan that would most effectively utilize its 80 primary VA hospitals by activating them in phases. This was submitted to the Military Airlift Command and was adopted with minor modifications.

- November 27-30, 1990 and December 4-7, 1990 - VA conducted a "Medical/Surgical Update" training program geared to VA physicians and nurses assigned to the 22 primary VAMCs initially identified as chemical casualty collection sites. Focus was on ballistic injuries, trauma medicine, infectious disease, chemical agent injuries, decontamination procedures, and combat traumatic stress. Faculty included experts from VA, DoD, FEMA and the civilian health care sector.

- December 18-20, 1990 - VA conducted "Interventions in Traumatic Stress" a training program for mental health workers at 22 primary VAMCs and corresponding Vet Centers initially identified as chemical casualty collection sites. VA, DoD, and FEMA faculty were used.

- January 8, 1991 - A national operations command post was established in VA Central Office. Day-to-day liaison between VA field stations concerning bed availability reporting, patient transfers, personnel and supply issues was established. Liaison with DoD's Armed Services Medical Regulating Office and Patient Airlift Center located at Scott Air Force Base, Illinois, was maintained. Communications between OEMP and DoD was on a daily basis.

- January 9, 1991 - VA conducted a 3-hour, two-part video-teleconference. Part 1: For VA administration, clinical and support staff describing VAMC responsibilities during the contingency plan for patient reception and patient administration. Presenters - CMD, OEMP Director, ASMRO, Military Airlift Command and a VAMC Director. Part 2: VAMC activities in bed reporting, through FORUM, using the new automated data base system, for VA administrative and support staff, e.g., Medical Administrative Service and Medical Administrative Assistant's.

- January 15, 1991 - VA began generating a daily bed availability report through the utilization of a new automated system. The weekly ready reserve mobilization impact statement by medical specialty from VAMCs nationwide (reported weekly since August 1990) was also generated by the improved reporting system.

- January 16, 1991 - President Bush ordered U.S. troops to escalate the military response to the Iraqi invasion. Strategic enemy military sites were bombed by allied forces.

- January 17, 1991 - First draft of VA/DoD Contingency Plan was distributed to all VAMCs, Regional Directors, and VACO program officials for comment and review.

- January 22, 1991 - Senate Appropriations Subcommittee on VA, HUD, and Independent Agencies conducted hearings on VA's role in "Operation Desert Storm". Secretary Derwinski and Dr. James Holsinger, CMD, were VA's lead witnesses.

- January 22-24, 1991 and February 2-7, 1991 - VA conducted further intensive medical/surgical training for VA physicians and nurses at the remaining 58 primary VAMCs designated to receive Persian Gulf casualties. Note - This was a repeat of the November 1990 training program with the addition of a "train-the-trainer" component. All primary VAMCs were told that they were potential recipients of chemical casualties.

- February 7, 1991 - VA completed a "Burn Bed" inventory that matched VAMCs with affiliated community burn centers. This document was shared with Armed Services Medical Regulating Office.

- February 8, 1991 - Second draft of the "VA/DoD Contingency Plan" was circulated to Regional Directors and VACO program officials for comment and review.

- February 21, 1991 - Request made that VHS&RA Operations continue ready reserve/retiree callback inventory from all VAMCs at six month intervals on a continuing basis following cessation of hostilities.

February 19-22, 1991 - VA conducted "Interventions in Traumatic Stress" training program for mental health workers from the remaining 58 primary VAMCs. Note - This was a repeat of the December 1990 training program with the addition of a "train-the-trainer" component.

February 22, 1991 - VA conducted a 2-hour video-teleconference to all 172 VAMCs, discussing interventions in traumatic stress using the panel of presenters from the previously mentioned training program.

February 23, 1991 - Commencement of "100 hour" ground war in Saudi Arabia/Kuwait.

March 1, 1991 - VA finalized a "clinical inventory" to match DoD's aeromedical evacuation Hub and Spoke system with capabilities of designated VAMCs identified to receive casualties from Persian Gulf. This included a mechanism to potentially use specific VAMC hospitals associated with University Hospital burn centers to further augment military and civilian burn bed inventories, if that became necessary.

March 5, 1991 - OEMP prepared a position paper for Operations outlining the draw down of the daily bed reporting:

a. Stopped daily bed reporting on Friday, March 7, 1991.

b. Report beds weekly through the week of April 1, 1991.

c. Report beds monthly until further notice (This would allow a continual monitoring of beds available as well as keep in place a valuable monitoring tool).

March 8, 1991 - VA sent "VA/DoD Contingency Plan" to VAMCs, Regional Directors and VACO program officials.

March 22, 1991 - Request made to VHS&RA Operations to continue bed reporting on a permanent quarterly basis during peacetime.

LESSONS/PROBLEMS/CORRECTIONS

These may be summarized under the following four headings:

Policy/Mission/Organization/Operations

1. Clarification of VHS&RA's fourth mission was clearly recognized both centrally as well as at the VAMCs throughout the U.S. This included the system of bed reporting as well as the individual responsibilities of each hospital whether designated a primary or secondary patient receiver.

During Desert Storm three primary hospitals due to internal problems, were removed from the list of primary receiving centers. (At present therefore, the VA has 77 primary and 82 secondary facilities). To review the ability of each hospital to fulfill its obligations within the Contingency Plan we have requested the development of a Chief Medical Director "Field Advisory Committee". Besides recommending changes in the VAMC casualty receiving center priorities, it would also provide feedback to the Office of Emergency Medical Preparedness on training needs, bed reporting as well as the roles of key services within VHS&RA. This information will allow the Office of Emergency Medical Preparedness to review and update the VA/DoD Contingency Operations plan annually.

2. The question of reimbursement must be clarified. The DVA will be part of a task force instituted by DoD to examine this area.

3. Clinical Affairs and the Office of Emergency Medical Preparedness have developed a clinical inventory of each VAMC throughout the VA system. This document is extremely important during wartime since it is the basis of hospital selection for injuries by the Armed Services Medical Regulating Office (ASMRO) at Scott Air Force Base, Illinois. A mechanism to review and keep this document current on a quarterly basis has been instituted.

4. The Office of Emergency Medical Preparedness must be made a permanent stand-alone organization within VHS&RA with appropriate recurring budget and FTEEs. Emergency Medical Preparedness should be a budget "line item". Efforts with the Commission on the Future Structure of Veterans Health Care are ongoing to clarify these areas.

Communications

1. Communications was a major issue. This not only included lack of some necessary communications equipment, but also command channels were at times unclear. The addition of necessary ADP equipment as well as publication of the VA/DoD Operations Plan should alleviate most of these problems.

2. The use of a new automated bed reporting format caused confusion, to include some senior officials. The system, put in place within a six week period, reported available beds in the "go to war" format. This was markedly different than the format everyone was used to. From January 15, 1991, on the "go to war" format was and will be the only one used for patient reporting both in peace and war. This has been termed the MTF or "Medical Treatment Facilities" Report.

The VA's new automated system worked as designed and properly reflected staffed available beds. The system actually generated two distinct reports; the "VA Bed Availability Report" for 24- and 72-hours and the MTF report. The former reflected the total staffed available beds at each medical center while the latter reflected staffed available beds at the primary receiving sites plus those beds available as readily accessible at the secondary facilities. The MTF is the report that is submitted daily during wartime to the Armed Service Medical Regulating Office (ASMRO) at Scott Air Force Base, Illinois.

Continued training and refinement of the system is ongoing.

Education/Training/Exercises

1. This must also be ongoing. Review of past Emergency Preparedness training initiatives and their continuing impact on the VA hospital system must and will be assessed. The plan is already in place.

2. Exercises must go hand-in-hand with education. The Contingency Plan must be exercised yearly. The patient tracking and billing system put in place by VHS&RA must also be maintained and exercised as well. Plans are being drawn up at present to accomplish this both internally as well as with DoD. It is planned to do this at least once yearly.

3. New training programs are ongoing in the area of Emergency Medical Preparedness (e.g., burns, eye injuries, rehabilitation, etc). These are being developed along with appropriate faculties.

Intergovernmental Issues

1. Liaison and training with DoD and affiliated federal agencies are programmed and will continue and deepen.

2. The impact of the loss of Reservists within the VA system and the relationship of VA job criticality versus priority of mission within DoD is being re-examined. At present (April 23, 1991) 2,333 Ready Reservists are still absent from VHS&RA or about 1% of the total work force.

We believe the VA/DoD Contingency Plan was "fit for duty" during Desert Storm. This was highlighted on April 9, 1991, when a military DC-9 Medevac plane with 35 casualties was grounded due to weather in Pittsburgh. The VAMC at University Drive was notified at 9:10 p.m. that patients would have to be sent to them for care. Emergency procedures were activated and hospital contract ambulances picked up the patients who were then triaged and admitted to the hospital by 11:00 p.m.

The Contingency Plan will continue to be made stronger as refinements are made and exercises are carried out. The Office of Emergency Medical Preparedness will continue to view its mission as one of ongoing National Security.

ANSWER: Short Range Plans: Each VA Medical Center has established a plan to meet the surge in workloads likely to be experienced in the event of military action. Depending on whether the VAMC is designated a primary or secondary site, specific actions are to be taken.

For example, at a minimum, each plan must identify how the VAMC would initiate reduced admission practices in order to meet required bed levels through:

1. Cancellation of elective admissions and procedures.
2. Discharge of patients who are medically stable.
3. Outplacement of VA hospitalized patients to secondary back-up or community hospitals.
4. Assurance of proper discharge planning to maintain continuity of care.

Subsequent admissions would be in accordance with the following admission priorities:

1. Priority Group I: any applicant presenting a bona fide medical emergency (i.e., delay in immediate admission would result in serious threat to life or health) will be admitted immediately without regard to eligibility.

2. Priority Group II:
   Service Connected (SC) veterans, treatment for any condition.
3. Priority Group III:
   a. VA/DOD Contingency Casualties/Active Duty Patients.
   b. Veterans for whom hospitalization has been requested by VBA in connection with a claim for VBA benefits.

4. Priority Group IV: Subject to space and resource availability, the following veterans will be admitted to VA facilities. If resources are not available when the patient applies for admissions, a bed will be offered at the nearest VA facility with an available bed. If no bed is available, the patient may be placed on a waiting list or referred to community resources at the veteran's expense. This group includes WWI, Mexican Border, Spanish American War veterans; veterans who receive non-service connected (NSC) pensions; former Prisoners of War; veterans requesting medical care in connection with exposure to herbicide or defoliant or to ionizing radiation following detonation of a nuclear device and other NSC, Category A veterans (low income, Medicaid eligible.)

5. Priority Group V: Subject to space and resource availability, the following beneficiaries will be admitted to VA facilities: NSC veterans with no special eligibility, CHAMPVA (Survivors and dependents of certain veterans); persons receiving care under a sharing agreement, beneficiaries of other Federal agencies, and Allied Beneficiaries.

Long Range Plans: The financial impacts of any increased workload would be monitored and tracked. In addition to ensuring that the Regions and Medical Centers receive adequate financial resources to accomplish the VA/DOD contingency mission during the period of national emergency, VHS&RA would work with the Deputy Secretary for Finance and Information Resources Management to determine needs for supplemental and future year appropriations to support the costs of increased service-connected workloads.

SENATOR MIKULSKI: Were non-service connected veterans likely to be displaced from VA hospitals? What plans did VA have to provide care to non-service connected veterans who might have been displaced had the contingency hospital system been implemented?

ANSWER: Only patients who are medically stable would be moved or discharged from a VA medical center in order to free beds for incoming casualties. Such an action could have resulted in a transfer to another VAMC or to a community hospital for continuing care. In cases of community hospital placement, the VA would have assumed financial responsibility.

SENATOR MIKULSKI: Should VA coverage of nonservice-connected veterans displaced by the activation of the contingency plan be limited to those lacking alternative health care coverage?

ANSWER: Hospital inpatients who have been accepted for care are VA's responsibility until the episode of care for which they are being treated is completed. Special emphasis would be placed on discharge planning to ensure continuity of care after the patient is discharged from the VA.

DESERT STORM

SENATOR MIKULSKI: The 91 supplemental included $25 million for VA medical care. While Secretary Derwinski told Congress that no additional funds were needed, unofficial estimates of more than $45 million were provided for items ranging from the costs of contract care to dental care. Why didn't the administration request a supplemental? Where will the funds come from for additional unfunded activities resulting from Desert Storm?

ANSWER: The unofficial estimate of $45 million assumed that Desert Storm would last through September 30, 1991. The actual additional costs incurred as a result of Desert Storm in FY 1991 were not significant, although they did require some redirection of resources and the $25 million supplemental will enable the VA to meet the expanded requirements for dental care, PTSD program activities and other Desert Storm costs.

READJUSTMENT COUNSELING

SENATOR MIKULSKI: You are requesting $52 million for readjustment counseling, the so-called "Vet Centers." This is an increase of less than 2% over fiscal year 1991. Do you really think this will be adequate, given that a large number of Persian Gulf vets may seek readjustment counseling?

ANSWER: The $52 million cost estimate included in the fiscal year 1992 budget on page 6-67 does not include additional resources to provide readjustment counseling services to Persian Gulf veterans.

PL 102-25 provides eligibility for readjustment counseling services to veterans of the Persian Gulf war. PL 102-27 includes nonrecurring funding of $1.4 million to support these services in 1991. Realignment of existing resources estimated at $1.2 million will be needed to continue these services in 1992.

STATE NURSING HOMES

QUESTION: The budget request for state nursing homes represents an increase of $15 million for a total of $85 million. Will the requested budget allow VA to fully fund all applications in this program?

ANSWER: Applications cannot be funded until the States have met all Federal requirements for a State home construction grant. In the past two years, VA has had a shortfall of $15 to $16 million for funding priority group 1 applications. These are applications for which States have State matching funds and can meet Federal requirements before the end of the fiscal year. We will not know the number of applications that qualify for group 1 or the total amount of Federal funds needed for group 1 projects until the priority list has been established after August 15, 1991. However, we expect that $85 million would fully fund all priority group 1 applications on that priority list.

OPTOMETRY

SENATOR MIKULSKI: As part of our report language requirements in Fiscal Year 1991 (Senate Report 101-474), the Committee expressed its concern with the Department's response to a GAO study with respect to the VA optometry program. At that time, the committee urged VA to resume its schedule for optometry staff expansion, increase VA's participation in the education and training of students and residents, and develop the plan for increased affiliations between VA medical facilities and optometry schools. Please provide VA's plan to address these issues, and the timetable for implementation.

ANSWER: VA has approved and funded an implementation plan for report language requirements contained in Fiscal Year 1991 (Senate Report 101-474) with respect to the VA optometry program. The plan calls for an additional 34 full time optometry positions beginning with 18 new positions in Fiscal Years 1991 and 1992 and 16 additional optometrists in Fiscal Years 1993 through 1995. The plan requires the development of 25 new academic affiliations for the training of optometry students and residents over the same period. A prioritized list of VA medical facilities has been developed for the placement of the 34 new optometry FTEE. This list is based both on veteran waiting time for primary eyecare services and the potential for developing new education and training programs. The implementation plan also requires the VA to issue policy statements with respect to providing eye/vision care services by a well-integrated team consisting both of optometrists and ophthalmologists and clarifying roles, responsibilities, and interaction among ophthalmic personnel and trainees at VA medical facilities. These policy circulars will be issued by the end of Fiscal Year 1991. A great deal of progress has been made during the current Fiscal Year in responding to the issues raised in (Senate Report 101-474) and I am confident VA will be in full compliance with all of the recommendations cited in the GAO Report, Role and Use of Optometry in the VA Need Improvement (HRD 78-129) by Fiscal Year 1995.

LOAN GUARANTY PROGRAM

SENATOR MIKULSKI: VA currently guarantees 400,000 loans with interest rates of 11% or higher. How many loans does VA hold at the 13% to 15% level? Given that mortgage interest rates are at their lowest level in 10 years, what is VA doing to reduce the number of loans at this level? At the current time, what percent of VA's business is in refinancing existing loans? Do you expect this number to increase if interest rates stay at their current level or decline further? To what extent do these refinancings reduce the risk of loss to VA?

ANSWER: As of the end of February 1991 there were 71,036 GI loans outstanding with interest rates at 13 to 15 percent. This represents a decrease of 47 percent from the 133,820 loans at these same interest rates outstanding as of the end of FY 1987. Similarly, the 400,000 loans outstanding currently at 11 percent or higher are 47 percent fewer than the 937,728 outstanding at the end of June 1986.

VA has taken several significant steps to encourage refinancing. In December 1990 we issued a directive to our field stations to obtain computer lists of veterans with high interest rate loans. Field stations then sent letters to these veterans advising them about the advantages of refinancing and including a list of lenders in their areas who are processing these types of loans. VA also issued a press release on March 12, 1991 that was carried in newspapers nationwide, which advised veterans and lenders of the opportunities of refinancing GI loans.

For the first six months of this fiscal year VA has guaranteed 6,059 refinancing loans which represents 6.6 percent of all loans guaranteed. We expect that refinancing activity will increase during the second half of this fiscal year. Refinancing of existing GI loans considerably reduces the risk of loss to VA. The borrower's monthly payment usually decreases by at least $100 per month which in effect increases disposable family income This provides borrowers an extra cushion during periods of financial difficulty. In addition, foreclosure losses to the government are less with lower interest rate mortgages.

SENATOR MIKULSKI: Describe VA's current refinancing program in terms of costs to the veteran and how the VA funding fee is treated.

ANSWER: Refinancing loans made under 1810(a)(5) of Title 38 are generally limited to 90% of the reasonable value. Normal loan closing costs apply to such loans, including the funding fee of 1.875% of the loan amount. The funding fee may be financed by adding it to the loan over and above the 90% limit, but the other closing costs must be paid either from the veteran's cash resources or loan proceeds not exceeding the 90% limitation. The 90% limit may be exceeded for the purpose of refinancing a construction loan, an installment sales contract or a loan assumed by the veteran. These loans are limited to the lesser of reasonable value or the balance to be refinanced plus closing costs.

SENATOR MIKULSKI: Has VA considered instituting a streamlined refinancing program which could be designed to assist the veteran in reducing his housing costs and at the same time reduce the risk to VA? Has VA had such programs in the past? Were they successful? What would be the benefits of such a program?

ANSWER: The VA home loan program has included a provision for refinancing an existing VA loan to reduce the interest rate since enactment of Public Law 96-385, effective October 7, 1980. Such loans are solely to reduce the interest rate on the veteran's mortgage, which usually results in a reduction of the veteran's monthly payment. Interest Rate Reduction Refinancing loans are often made at no cost to veterans, since the interest rate need not be reduced to the current VA set interest rate, as long as it is lower than the rate on the prior loan, and the new loan can include the closing costs, discount and funding fee. When these loans result in lower monthly payments the veteran benefits from the lower payment and the reduced risk of default benefits the loan holder and VA as well. To date, over 286,000 Interest Rate Reduction Refinancing loans have been guaranteed.

VA REORGANIZATION

SENATOR MIKULSKI: What is the status of VA's planned reorganization? Why is it necessary to have an Assistant Secretary (AS) for Public Affairs and one for Congressional Affairs? Please describe the problems that exist with the current arrangement and the need to split the AS for Congressional and Public Affairs into two positions.

ANSWER: We have briefed the staff directors of the House and Senate Veterans' Affairs Committees on the planned changes and forwarded a formal written notification dated April 19, 1991. No implementation action will be taken until the 30-day notification requirement of 210(b) has been met. In the meantime, we are developing plans for the staffing and functional realignments needed to support the new organizational structure.

The decision to devote one Assistant Secretary position exclusively to oversight and direction of the Public Affairs program and another exclusively to the Congressional Affairs program was influenced by many factors, including:

- The broad scope and importance of each of these programs.
- An increasing work volume in each of these program areas.
- The Department's desire to provide the public and the Congress prompt and accurate responses to the myriad of complex questions, concerns and issues which arise over veterans matters.

- Two years experience in managing these programs in a Cabinet level organization has led us to believe that separation of the programs will yield stronger management and increased effectiveness. Most other Federal departments have structured Public Affairs and Congressional Affairs as separate organizational entities; this supports the conclusions we have reached.

While we have not experienced significant problems with the current organizational structure, it has been difficult for one Assistant Secretary to simultaneously focus on a heavy volume of critical and time-sensitive issues in each of the two program areas.

QUESTIONS SUBMITTED BY SENATOR LEAHY

SENATOR LEAHY: Mr. Secretary, the Advisory Committee for Health Research Policy that you appointed last year, recently concluded that VA research is "vital to the continued ability of the VA to provide high quality health and medical care to its veteran constituency.

The Commission noted that VA research is inadequately supported to achieve its goals and recommended a budget for medical research of $235 million and a budget of $280 million for the total medical research program. The President's budget request totalled only $217 million for FY 92. Why did the VA fail to fund medical research at the levels recommend by its own commission?

ANSWER: In an environment of limited overall resources, no increase over the prior year's research funding level was possible. The Committee's recommendation was not released officially until after FY 1992 budget decisions were made by VA and OMB.

SENATOR LEAHY: I understand that over half of the research grants approved will not receive funding in FY 92. Is this estimate correct?

ANSWER: Assuming the passage of the President's budget for fiscal year 1992, approximately 25% of the approved Medical Research applications will be funded. In comparison, in fiscal year 1991, Medical Research Service will fund approximately 40% of the merit review applications approved by the Merit Review Boards.

SENATOR LEAHY: Finally, please provide a list of how VA research funds were distributed to VA hospitals in FY90.

ANSWER: The requested list is hereby provided.

EQUIPMENT BACKLOG

SENATOR LEAHY: Mr. Secretary what is the current backlog for medical equipment?

ANSWER: The end of fiscal year 1991 level of replacement equipment backlog is estimated to be $864 million.

SENATOR LEAHY: The Department of Veterans Affairs has requested legislative language to delay the availability of $338 million in medical care that would be used for equipment. Why should Congress approve this delay when there is a dire need for new equipment at VA hospitals around the country?

ANSWER: Due to the delay in the availability of $278 million in 1991 capital investment accounts, 57 percent of the funds available in 1991 for equipment and lands and structure cannot be obligated until after August 1, 1991. A similar provision delaying $338 million (56 percent) of the resources requested in 1992 for equipment and lands and structures until August 1, 1992 is included in the 1992 budget submission to assure compliance with Public Law 101-508, the Omnibus Budget Reconciliation Act of 1990. While these provisions further complicate the process of managing our capital investment programs efficiently, they do not reduce the total availability for these two years. Since items are deleted from the backlog once replacement equipment is obligated, the end of year backlog should not be affected by these special provisions.

DoD/VA MEDICAL CARE AGREEMENT

SENATOR LEAHY: Mr. Secretary, the Secretary of Defense recently proposed to close Ft. Devens in Massachusetts. Many military retirees in Vermont and northern New England received medical care at Ft. Devens. In the event that the Base Closure Commission approves the closing of Ft. Devens, would the Veterans Administration consider establishing an agreement with the Department of Defense to provide medical care to military retirees in northern New England? Are there similar agreements between DoD and the VA at other hospital?

ANSWER: VA medical facilities are intended for use by veterans. Veterans eligibility to use these facilities is defined by law.

The VA/DoD Sharing Law (38 U.S.C. { 5011) authorizes military retirees and active duty members of the armed services to use VA medical centers on a space available basis. Ft. Devens has agreements with VAMCs in the Boston area. However, utilization of services in agreements is largely limited to diagnostic outpatient services.

Because of budget constraints and space limitations VA would not be able to provide significant amounts of health care to military retirees. There are many VA/DoD sharing agreements which involve providing health services to military retirees throughout the country. However, there are no agreements spanning the continuum of care because of the reasons cited above.

NATIONAL ETHICS CENTER

SENATOR LEAHY: Mr. Secretary, we are proud in Vermont that the White River Junction VA Hospital was selected as the site for the National VA Medical Ethics Center. What is the proposed funding for the Ethics Center in FY 92? How many FTE will this support?

ANSWER: 2.5 FTE have been authorized by the Chief Medical Director for the Ethics Center. Other funding will be provided to support the operational activities of this staff.

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

EQUAL ACCESS TO BENEFITS

SENATOR LAUTENBERG: Mr. Secretary, there is a certain anxiety among especially older veterans that their access to medical treatment may decline in the rush of post Persian Gulf war veterans requiring attention. I am heartened by your opening statement that you are sensitive to this concern which has also been addressed through supplemental appropriations. Have you, however, taken the necessary administrative steps to deliver on that commitment to all generations of veterans?

ANSWER: The Veterans Health Services and Research Administration's Strategic Plan which addresses the Fiscal Years 1991 through 1997 is designed to fully support the Department's principal goals of 1) providing the most compassionate and highest quality services to veterans and their families and 2) becoming the most responsive and best managed service delivery organization in the Federal government. An important principle governing this plan is that veteran access to services will be maintained in a variety of ways including appropriate geographic distribution of medical programs, allocation of resources, and eligibility rules that allow medical needs to be paramount in developing treatment plans for veterans. This Strategic Plan will help shape a VA health care delivery system that can meet the needs of eligible veterans for the remainder of this decade and provide a sound foundation of services for veterans as we move into the 21st century.

MAINTENANCE OF "STORE FRONT" VET CENTERS

SENATOR LAUTENBERG: "Store front" veterans centers came into existence some years ago to help Vietnam veterans with any and all problems. My understanding is that they have been quite successful and have been made available to help veterans of Panama, Granada and the Persian Gulf. I have heard, however, of one center in Trenton, NJ, which is in poor condition, including a leaking roof which the local landlord has not repaired

Has the VA allocated adequate funds to maintain and oversee these centers so they can respond to the increased burden they will soon be facing?

ANSWER: I assure you that the annual budget for vet center operations includes funding for vet center leases, physical maintenance, renovations and relocations when necessary to improve overall conditions and access to care. The Readjustment Counseling Service (RCS) relocates approximately 15 vet centers a year to improve quality of veteran services and/or to address emergency conditions which are beyond the control of VA. The latter includes such things as physical deterioration of facilities for which the landlord refuses to assume responsibility. With particular reference to the Trenton, New Jersey Vet Center, RCS officials persisted in attempts to negotiate the needed repairs due to the advantages of the current location, adjacent to the city building in downtown Trenton. However, the landlord has remained impervious to our requests and we have now initiated relocation procedures. RCS will continue to monitor the situation closely until the relocation is complete.

MAGNETIC RESONANCE IMAGER FOR EAST ORANGE VETERANS HOSPITAL

SENATOR LAUTENBERG: Last year the Department of Veterans Affairs identified an acute need for a Magnetic Resonance Imager (MRI) in New Jersey, and the Department chose to award the Veterans' Affairs Medical Center in East Orange, New Jersey federal funding for its acquisition. Unfortunately, due to delays in gaining the necessary New Jersey state approval for the project, the Department chose to transfer funding from this project to another, so that the money could be spent during Fiscal Year 1990.

The need for a second MRI unit in the New Jersey, New York and Eastern Pennsylvania area hasn't diminished over the last 6 months. As you know, the only MRI unit currently serving veterans in the area is a mobile MRI unit which is associated with the Bronx, Brooklyn and Manhattan Veterans' Affairs Hospitals, and those in need of an MRI scan have to wait up to 8 weeks for MRI services.

Since last year, I've devoted a lot of effort toward convincing state officials to grant the necessary certificate of need for the MRI's acquisition. Last month, the New Jersey Department of Health gave its official approval to this project.

Mr. Secretary, I've been very pleased with the Department's previous attempts to make MRI service more readily available to New Jersey veterans. Now that the necessary state approval for this acquisition has been granted, will the Department provide the funds necessary to assure the acquisition of this equipment that is so important to veteran's health care in New Jersey and the surrounding regions?

ANSWER: The proposal submitted by VAMC East Orange and its prospective sharing partner institution, the University of Medicine and Dentistry of New Jersey - University Hospital has been selected for final stage competition in this fiscal year's Advanced Technology Medical Equipment Acquisition and Sharing Program. Final funding decisions will be made by the Office of the Chief Medical Director.

QUESTIONS SUBMITTED BY SENATOR KERREY

WESTERN NEBRASKA

SENATOR KERREY: 1. The Western part of Nebraska is a relatively long distance from the VAMCs in the state. In fact, many veterans in the Panhandle go to Cheyenne, WY, or Hot Springs, SD. As veterans age, these trips become more difficult to make.

-a- Have you looked into the problems faced by veterans in this area and have you looked at alternative care to traveling out of state?

ANSWER: Historically VHS&RA health care planning has been based on veteran health care utilization patterns at existing VA facilities. Experience has shown that most veterans in western Nebraska, particularly the Panhandle, seek primary and secondary care at VAMCs Hot Springs, SD, and Cheyenne, WY, and tertiary care at VAMC Denver, CO. There are no urban population centers in this area; Scotts Bluff is located 311 miles from VAMC Grand Island, 107 miles from VAMC Cheyenne, WY, and 148 miles from VAMC Hot Springs. Access to health care for veterans residing in this area is a planning concern of the VA.

-b- I have seen some references to temporary clinics which would be held periodically in certain cities. Is this a viable approach?

ANSWER: VAMC Hot Springs, SD, currently has outreach clinics in operation which visit Alliance and Rushville, Nebraska, twice per month, seeing an average of 22 patients at each site. Ongoing dialogue continues between VAMC Hot Springs and Veterans Service Organizations in Scotts Bluff, Nebraska, to explore avenues for improving access to care for veterans in this area.

-c- I have heard discussion of a possible contract between Regional West in Scotts Bluff and DVA. Is this being considered?

ANSWER: Such a sharing agreement has been suggested by interested area veterans but to-date has not resulted in a specific proposal.

-d- Do you use contract relationships in other parts of the country?

ANSWER: Various types of medical sharing arrangements are being pursued locally by VA medical centers.

Additionally, a draft agreement is currently being developed by the Departments of VA and HSS to solicit proposals for rural health initiative demonstration projects through the sharing of medical resources by both veterans and non-veterans in medically underserved, geographically remote areas.

SENATOR KERREY: 2. Some of the veterans in this area have expressed concern over beneficiary travel.

-a- What reimbursement policy is now in effect?

ANSWER:

The current reimbursement rate to veterans eligible to receive VA beneficiary travel payments is 11 cents per mile when the veteran is authorized to use a privately owned conveyance and

17 cents per mile when such travel is for the convenience of the government. All reimbursements, with the exception of special modes and compensation and pension scheduled examinations, are subject to a $6.00 round-trip deductible with a calendar monthly deductible cap of $18.00. Most patients who travel more than 3 round-trips per calendar month will satisfy the $18.00 monthly deductible cap and then are entitled to receive full travel reimbursement for the remainder of the month. Costs of ferry fares and bridge, road, and tunnel tolls are paid in addition to the mileage rate. VA periodically conducts studies of the adequacy of the beneficiary travel mileage reimbursement rates to determine if adjustments are warranted. These studies, in consultation with the Administrator of the General Services Administration, the Secretary of Transportation, the Comptroller General, and representatives of veterans organizations, serve as the basis for determining whether changes in the rates are in order. A new study of beneficiary travel rates, called for by the recent increase in the Federal employee mileage rate to 24 cents per mile, is being planned and should be completed in the near future. The last study concluded that additional costs associated with increased beneficiary travel rates could not be absorbed without an adverse effect on direct medical care, and that funding for increased rates would be better applied to medical care and treatment of veterans.

-b- How are reimbursements made when carpools and vans are used?
ANSWER: Persons who travel on the DAV volunteer network van are not entitled to beneficiary travel payments. Local policy dictates that the travel clerk must query each claimant about their mode of travel. Provided non-DAV vanpool claimants indicate carpool or van, only the driver is allowed reimbursement.

STATE EXTENDED CARE FACILITIES

SENATOR KERREY: 1. State extended care facilities or state homes tend to be a good financial deal for the VA since the state picks up a portion of the cost.
-a- What is your average cost of providing care in a state home, a VAMC and a private facility?
ANSWER: The average cost to the VA for FY 1990 for providing care in state home is $21.83, $154.92 for VA nursing home, and $79.20 for a private facility.

-b- the VA has plans, I understand, to increase reimbursement to states. Please explain how this will be done.
ANSWER: Public Law 100-322 gave authority to the Secretary of Veterans Affairs to evaluate the State Home Per Diem rates annually and increase as appropriate. The increase cannot exceed the percentage increase in the cost of care in a VA general hospital. Based on current data, the FY 1991 increase is 2.28 percent and the FY 1992 proposed increase is 13 percent.

SENATOR KERREY: 2. Because of the financial benefits of state homes to the VA, I can understand your interest in construction of such facilities in states which do not have them. By making construction a priority, however, your formula tends to reject renovation and alteration projects. How do you propose that we maintain and assist the homes which we do have when the formula so favors new construction?

ANSWER: Public Law 99-576, enacted in 1986, established the criteria for awarding State home construction grants. The criteria in this law requires VA to accord priority to (1) States that have made available sufficient State matching funds; (2) States without State homes; (3) projects having a greater need; and (4) projects that meet such other requirements as VA may determine and prescribe by regulations. In developing the governing regulations for according priority to State home construction grant applications, VA provided mechanisms for renovations and alterations in existing State homes. Renovations or alterations are by no means rejected in the ranking process. In fact, one application for renovation on the August 15, 1990, priority list was ranked number 6 and there were 17 others which were ranked numbers 16 through 32 in priority group 1 on the list. If life safety problems exist and documentation of cited deficiencies is submitted with the State's applications, such renovations receive the same high value (10) as a nursing home bed producing project. The way to maintain and assist the State homes in both renovation and construction projects is for Congress to provide sufficient Federal funds for all State home grant applications. We believe this has been accomplished in the Fiscal Year 1992 budget, and with an $85 million appropriation, we anticipate funding the backlog of group 1 applications, including those applications from States for renovations or alterations.

SENATOR KERREY: 3. Last year, Congress increased the funding for state homes construction by about 48 percent, what portion of the $70 million went for new facilities?

ANSWER: VA has not awarded all the $70 million in State home grant funds yet. We anticipate awarding these funds as follows: 69 percent for construction of new State homes; 22 percent for expansion of existing State homes; 5 percent for renovation of existing State homes; and 4 percent held in reserve for cost increases.

SENATOR KERREY: 4. What is the current backlog of this program?

ANSWER: As of April 30, 1991, the backlog of eligible preapplications and applications (all requests we have on hand) totaled $176,295,000. We currently have on hand Federal funds in the amount of $82,668,000. We thus have a backlog of applications for which Federal funds are unavailable totaling $93,607,000. It should be noted that not all the States have provided State matching funds for their applications, and it is estimated that only 50 to 75 percent of the States will do so in the next fiscal year. So far, about 17 percent of all remaining applications on hand (for which Federal funds are not available) are in priority group 1 (States which have provided State matching funds).

SENATOR KERREY: 5. People in my state tell me that they have been assured that the Nebraska projects will be funded in

FY 92 if the $85 million requested is provided. Can you give me that assurance?

ANSWER: The Nebraska projects qualified for group 1 of the priority list as of August 15, 1990. These projects were among the $13-16 million shortfall during FY 1991. We will need recertification that State funds remain available in order for the applications to qualify for group 1 on the August 15, 1991 priority list. States, by law, have until August 15, 1991, to submit applications and assurance of State matching funds to qualify for priority group 1 on the priority list. We encouraged States to submit preapplications by April 15, 1991, so we would have some idea of how many would be seeking Federal assistance during FY 1992. Based on the information we currently have on hand, we are optimistic that the $85 million will be sufficient to cover all priority group 1 applications, including the renovation projects for Nebraska. Once funding is available, the State will need to meet other requirements before VA may award a grant for these projects.

ALZHEIMER'S UNITS

SENATOR KERREY: 1. What is your policy with respect to the establishment of Alzheimer's Units?

-a- What are the criteria for establishment of such units?
-b- How many such units do you have and where?

ANSWER: The number of veterans with severe dementia is projected to increase significantly from an estimated 200,000 in 1983 to 600,000 by the year 2000. VHS&RA's FY 1993-1997 Strategic Plan includes an initiative to establish Specialized Alzheimer's/Dementia Units which will provide supervision while addressing quality of life issues for veterans with Alzheimer's Disease and related disorders who have significant management problems and cannot be cared for in the community or in nursing homes. VHS&RA's current goal is to establish 20 new inpatient Specialized Alzheimer's/Dementia Units by FY 1997.

No special medical care resources have been identified for specialized inpatient Alzheimer's/Dementia units in previous budgets. However, a survey coordinated by the Office of Geriatrics and Extended Care (OGEC) in 1988-1989 and a survey coordinated by the Office of Mental Health and Behavioral Sciences in 1990 revealed that a number of VA Medical Centers reported having established specialized inpatient Alzheimer's/Dementia Units as local initiatives with local resources. OGEC is currently gathering data on the resources and FTEE of these existing units, in preparation for the development of criteria and standards for this type of specialized unit.

The following 34 VAMCs have reported specialized inpatient Alzheimer's/Dementia units: American Lake, WA; Augusta, GA; Baltimore, MD; Batavia, NY; Bath, NY; Boston, MA; Brockton-West Roxbury, MA; Bronx, NY; Canandaigua, NY; Coatesville, PA; Dayton, OH; Topeka, KS; Bedford, MA; Houston, TX; Kerrville, TX; Knoxville, IA; Lebanon, PA; Lexington, KY; Little Rock, AR; Livermore, CA; Lyons, NJ; Miami, FL; Milwaukee, WI; Minneapolis, MN; North Chicago, IL; Palo Alto, CA; Perry Point, MD; Pittsburgh, PA; Salem, VA; Salisbury, NC; Salt Lake City, UT; Tomah, WI; Tuscaloosa, AL; and West Los Angeles, CA.

SENATOR KERREY: 2. Do you support units in both VAMC and state extended care facilities?

ANSWER: Yes

SENATOR KERREY: Do you find one facility (medical center vs. state home) preferable to the other for such units?

ANSWER: No

SENATOR KERREY: 3. Some areas of Nebraska are at least 650 miles from an Alzheimer's unit.

-a- Is this a usual/unusual situation?

ANSWER: At the present time, thre are only 31 formally designated inpatient Alzheimer's units in the VA health care system.

-b- Are you attempting some geographical distribution in the system?

ANSWER: VHS&RA has included the establishment of 20 additional new inpatient Alzheimer's/Dementia Units by 1997 in its current Strategic Planning goals.

SENATOR KERREY: 4. As the WWII veteran population continues to age, more need for Alzheimer's units/care can be expected. What is your long-term plan fro meeting this need.

ANSWER: VHS&RA's current goal is to establish 20 new inpatient Specialized Alzheimer's/Dementia Units in VAMCs by FY 1997. Specifically, the plan is to establish 2 units in 1993, 4 units in 1994, 4 units in 1995, 6 units in 2997, and 4 units in 1997.

SENATOR KERREY: 5. What kinds of research into Alzheimer's are you supporting?

ANSWER: Medical Research Service supports research on Alzheimer's disease that ranges from basic neurobiological studies to clinical investigation of new drugs. A complete list of VA supported research on Alzheimer's is attached.

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VA FUNDING FROM FY 1990 RDIS

MEDICAL CENTER	PROG 821	PROG 822	PROG 823	PROG 824	TOTAL
9 HONOLULU, HI	$100,366	$0	$0	$0	$100,366
2 TOGUS, ME	$42,084	$0	$0	$12,282	$54,366
5 WHITE RIVER JU	$887,117	$77,563	$0	$99,838	$1,064,518
7 FARGO, ND	$88,458	$0	$0	$0	$88,458
8 SIOUX FALLS, S	$14,653	$0	$0	$0	$14,653
2 WICHITA, KS	$181,122	$0	$0	$0	$181,122
0 WILMINGTON, DE	$38,322	$0	$0	$0	$38,322
0 ALBANY, NY	$964,118	$0	$0	$100,350	$1,064,468
1 ALBUQUERQUE, N	$3,106,436	$48,499	$0	$0	$3,154,935
3 ALTOONA, PA	$0	$97,175	$0	$0	$97,175
4 AMARILLO, TX	$233,837	$0	$0	$0	$233,837
5 AMERICAN LAKE,	$1,067,227	$0	$0	$22,500	$1,089,727
6 ANN ARBOR, MI	$3,081,967	$47,131	$0	$411,417	$3,540,515
8 DECATUR, GA	$1,609,460	$1,654,872	$0	$0	$3,264,332
9 AUGUSTA, GA	$947,621	$184,206	$0	$28,766	$1,160,593
2 BALTIMORE, MD	$2,644,686	$0	$0	$0	$2,644,686
6 BAY PINES, FL	$239,144	$28,275	$0	$0	$267,419
8 BEDFORD, MA	$716,402	$0	$0	$137,935	$854,337
1 BIRMINGHAM, AL	$2,689,666	$211,553	$0	$0	$2,901,219
3 BOSTON, MA	$2,731,838	$176,607	$0	$12,659	$2,921,104
5 BROCKTON, MA	$2,584,994	$477,316	$0	$449,369	$3,511,679
6 BRONX, NY	$2,379,524	$77,960	$0	$0	$2,457,484
7 BROOKLYN, NY	$601,776	$0	$0	$0	$601,776
8 BUFFALO, NY	$1,255,854	$0	$0	$0	$1,255,854
0 WEST LOS ANGEL	$1,929,888	$0	$0	$227,701	$2,157,589
1 BOISE, ID	$683,564	$0	$0	$0	$683,564
3 CASTLE POINT,	$43,989	$100,231	$0	$0	$144,220
4 CHARLESTON, SC	$1,836,624	$0	$0	$0	$1,836,624
5 CHICAGO, (LAKE	$1,404,971	$606,250	$0	$55,332	$2,066,553
7 CHICAGO, (WEST	$1,393,786	$0	$0	$46,264	$1,440,050
9 CINCINNATI, OH	$1,842,098	$0	$0	$13,988	$1,856,086
1 CLEVELAND, OH	$2,777,138	$2,090,262	$0	$7,006	$4,874,406
2 COATESVILLE, P	$103,930	$0	$0	$0	$103,930
3 COLUMBIA, MO	$2,021,971	$0	$0	$0	$2,021,971
4 COLUMBIA, SC	$806,336	$108,729	$0	$0	$915,065
6 MIAMI, FL	$3,389,964	$128,205	$0	$15,782	$3,533,951
9 DALLAS, TX	$2,934,257	$0	$0	$272,363	$3,206,620
0 DANVILLE, IL	$7,973	$0	$0	$0	$7,973
2 DAYTON, OH	$170,773	$443,153	$0	$0	$613,926
3 ALLEN PARK, MI	$1,009,127	$0	$0	$0	$1,009,127
4 DENVER, CO	$4,103,853	$311,414	$0	$62,217	$4,477,484
6 NORTH CHICAGO,	$810,346	$112,400	$0	$175,825	$1,098,571
8 DURHAM, NC	$4,869,663	$89,250	$0	$493,541	$5,452,454
1 EAST ORANGE, N	$1,291,954	$99,519	$0	$0	$1,391,473
6 FORT HOWARD, M	$60,729	$0	$0	$0	$60,729
0 FRESNO, CA	$117,372	$0	$0	$3,000	$120,372
3 GAINESVILLE, F	$1,882,411	$119,408	$0	$0	$2,001,819
8 GRAND JUNCTION	$17,816	$0	$0	$0	$17,816
8 HINES, IL	$3,594,349	$2,068,713	$0	$740,419	$6,403,481
0 HOUSTON, TX	$2,578,046	$0	$0	$125,808	$2,703,854
1 HUNTINGTON, WV	$298,588	$0	$0	$0	$298,588
3 INDIANAPOLIS,	$1,643,618	$0	$0	$341,770	$1,985,388

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4	IOWA CITY, IA	$6,706,371	$53,065	$0	$247,645	$7,007,081
6	JACKSON,MS	$916,664	$0	$0	$0	$916,664
9	KANSAS CITY, M	$2,379,586	$0	$0	$20,770	$2,400,356
0	HAMPTON, VA	$367,899	$0	$0	$0	$367,899
2	KNOXVILLE, IA	$0	$0	$0	$48,160	$48,160
5	LEBANON, PA	$9,823	$0	$0	$0	$9,823
6	LEXINGTON, KY	$1,472,514	$0	$0	$0	$1,472,514
8	LITTLE ROCK, A	$1,184,596	$125,324	$0	$682,406	$1,992,326
9	LIVERMORE, CA	$290,596	$0	$0	$0	$290,596
0	LONG BEACH, CA	$2,373,252	$441,759	$0	$61,845	$2,876,856
3	LOUISVILLE, KY	$901,889	$0	$0	$0	$901,889
4	LYONS, NJ	$305,105	$31,800	$0	$0	$336,905
5	LOMA LINDA, CA	$1,697,281	$23,108	$0	$0	$1,720,389
7	MADISON, WI	$1,837,041	$149,132	$0	$91,912	$2,078,085
8	MANCHESTER, NH	$326,444	$0	$0	$0	$326,444
12	MARTINEZ, CA	$2,138,884	$147,247	$0	$137,744	$2,423,875
14	MEMPHIS, TN	$3,240,563	$215,590	$0	$93,459	$3,549,612
18	MINNEAPOLIS, M	$5,932,681	$0	$0	$129,612	$6,062,293
20	MONTROSE, NY	$143,650	$0	$0	$0	$143,650
21	MOUNTAIN HOME,	$21,346	$0	$0	$0	$21,346
22	MURFREESBORO,	$55,428	$0	$0	$0	$55,428
26	NASHVILLE, TN	$4,026,972	$213,610	$0	$0	$4,240,582
27	NEWINGTON, CT	$816,194	$0	$0	$0	$816,194
29	NEW ORLEANS, L	$1,484,070	$133,515	$0	$0	$1,617,585
30	NEW YORK, NY	$2,042,952	$469,281	$0	$0	$2,512,233
32	NORTHPORT, NY	$1,293,734	$0	$0	$0	$1,293,734
35	OKLAHOMA CITY,	$1,665,925	$0	$0	$0	$1,665,925
36	OMAHA, NB	$1,777,874	$0	$0	$0	$1,777,874
37	ASHEVILLE, NC	$172,155	$0	$0	$0	$172,155
40	PALO ALTO, CA	$5,531,546	$2,215,649	$0	$539,361	$8,286,556
41	PERRY POINT, M	$1,773,048	$0	$0	$434,597	$2,207,645
42	PHILADELPHIA,	$2,726,094	$194,000	$0	$235,222	$3,155,316
44	PHOENIX, AZ	$136,766	$0	$0	$24,669	$161,435
45	PITTSBURGH, (H	$559,308	$272,861	$0	$0	$832,169
46	PITTSBURGH, (U-	$1,857,869	$54,076	$0	$26,902	$1,938,847
48	PORTLAND, OR	$3,725,1[illegible]	$143,260	$0	$283,987	$4,152,385
50	PROVIDENCE, RI	$456,836	$0	$0	$0	$456,836
52	RICHMOND, VA	$1,469,635	$242,607	$0	$0	$1,712,242
53	ROSEBURG, OR	$5,249	$0	$0	$0	$5,249
54	RENO, NV	$481,075	$0	$0	$138,156	$619,231
56	ST CLOUD, MN	$71,982	$0	$0	$0	$71,982
57	ST LOUIS, MO	$2,196,576	$0	$0	$98,343	$2,294,919
58	SALEM, VA	$79,518	$0	$0	$0	$79,518
60	SALT LAKE CITY	$3,837,421	$203,688	$0	$46,777	$4,087,886
62	SAN FRANCISCO,	$8,541,825	$220,193	$0	$27,063	$8,789,081
63	SEATTLE, WA	$4,275,962	$1,167,306	$0	$1,107,130	$6,550,398
64	SAN DIEGO, CA	$6,884,629	$436,340	$0	$32,060	$7,353,029
65	SEPULVEDA, CA	$5,378,860	$0	$0	$37,387	$5,416,247
67	SHREVEPORT, LA	$378,940	$0	$0	$0	$378,940
70	SYRACUSE, NY	$968,338	$175,874	$0	$0	$1,144,212
71	SAN ANTONIO, T	$2,611,326	$0	$0	$135,385	$2,746,711
72	SAN JUAN, PR	$429,960	$0	$0	$0	$429,960
73	TAMPA, FL	$1,134,319	$182,647	$0	$74,520	$1,391,486
77	TOPEKA, KS	$1,521	$0	$0	$0	$1,521
78	TUCSON, AZ	$1,433,589	$0	$0	$6,148	$1,439,737
88	WASHINGTON, DC	$1,675,011	$60,296	$472,209	$83,665	$2,291,181

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589 WEST HAVEN, CT     $6,686,701     $131,299           $0          $0    $6,818,000
591 WEST LOS ANGEL     $5,366,154     $169,934           $0          $0    $5,536,088
592 WHITE CITY, OR        $33,640           $0           $0          $0       $33,640
595 MILWAUKEE, WI      $3,886,756     $240,432           $0     $65,268    $4,192,456
'50 BOSTON, OPC, M     $1,847,412   $1,027,067           $0          $0    $2,874,479
'52 LOS ANGELES, O       $112,079      $43,795           $0          $0      $155,874
'57 COLUMBUS, OPC,        $53,405           $0           $0          $0       $53,405
                     $194,021,783  $18,543,446     $472,209  $8,766,325  $221,803,763
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EEG Background Activation in the Diagnosis of Alzheimer's Disease
olitoff, Alberto L., M.D. 437 FARGO, ND
PROJECT 1
LAST REPORT, INITIAL 01/90

Parkinson and Alzheimer's Disease: Insights into CNS Mediation of Language Function
an Lancker, Diana, Ph.D. 437 FARGO, ND
PROJECT 3
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Detection of Neuronal Activity from the Associative Areas of the Human Brain with MEG and EEG
kada, Yoshio, Ph.D. 501 ALBUQUERQUE, NM
PROJECT 4
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cremin, Oscar U., M.D., Ph.D. 501 ALBUQUERQUE, NM
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A Longitudinal Cross-Sectional Study of Visual Evoked Potentials in Males with Senile Dementia of the Alzheimer's Type
iett, Jeffrey A., O.D. 505 AMERICAN LAKE, TACOMA, WA
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Potential Therapeutic Effects of TRH and Lecithin Co-Administration in Alzheimer's Disease: A Pilot Study
Lampe, Thomas, M.D. 505 AMERICAN LAKE, TACOMA, WA
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Alzheimer's Disease: Physiologic Responses to TRH Infusion
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Automated EEG Biomarkers: Alzheimer's, Multiinfarct Dementia & Depression
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Biomarkers for Early Expression of Alzheimer's Disease
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Chemical Markers for Alzheimer's Disease in Cerebrospinal Fluid
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ustin, Garth E., M.D., Ph.D. 508 DECATUR, GA
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Development of Extended Norms for the Wechsler Adult Intelligence Scale and Dementia Rating Scale
artino-Saltzman, David 508 DECATUR, GA
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Cytoskeletal Pathology in Alzheimer's Disease
irra, Suzanne S., M.D. 508 DECATUR, GA
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LAST REPORT, PROGRESS 11/90

CERAD Neuropathology Task Force (Consortium to Establish a Registry for Alzheimer's Disease)
irra, Suzanne S., M.D. 508 DECATUR, GA
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Pattern of Memory Loss in Alzheimer's Disease
andisode, Madhukar S., M.D. 509 AUGUSTA, GA
PROJECT 4
LAST REPORT, PROGRESS 01/91

A Double-Blind, Placebo-Controlled, Multicenter Study of Tacrine (CI-970) and Lecithin (CI-9091) in Alzheimer's Disease Patients
orison, Richard L., M.D., Ph.D. 509 AUGUSTA, GA
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In Vivo Probe of Central Cholinergic Systems
eador, Kimford J., M.D. 509 AUGUSTA, GA
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Thiamine in Dementia
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Regulation of S100beta/Neurite Extension Factor Gene Expression
ilt, Dana C., M.D. 512 BALTIMORE, MD
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LAST REPORT, INITIAL 08/90

Predicting the Decision to Institutionalize Alzheimer's Patients
usby, Rebecca M., Ph.D. 515 BATTLE CREEK, MI
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LAST REPORT, INITIAL 08/90

Optic Nerve Degeneration in Patients with Probable Alzheimer's Disease
elson, T. Russell, Ph.D. 516 BAY PINES, FL
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LAST REPORT, FINAL 08/90

Changes in Brain Gene Expression in Familial Alzheimer's Disease
Duguid, John R., M.D., Ph.D. 518 BEDFORD, MA
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Molecular Biology of Scrapie
uguid, John R., M.D., Ph.D. 518 BEDFORD, MA
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LAST REPORT, PROGRESS 07/90

The Effect of Medications on Parotid Salivary Flow Rates in an Alzheimer Patient
odele, Denise J., D.M.D. 518 BEDFORD, MA
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LAST REPORT, FINAL 06/90

Role of Transferrin in Iron Transport from Blood to Brain
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LAST REPORT, PROGRESS 03/90

Audio Stimulation Therapy for Alzheimer's Patients
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LAST REPORT, PROGRESS 07/90

Pilot Project to Develop and Assess Rehabilitation Strategies for Patients
with Alzheimer's Disease
asch, Kathryn E., Ph.D. 518 BEDFORD, MA
PROJECT 1
LAST REPORT, FINAL 04/90

Roll of Viral Infection of Olfactory Mucosa in Alzheimer's Dementia
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LAST REPOPT, FINAL 03/90

Biochemical Markers in Alzheimer's Disease
eslie, Crystal A., Ph.D., M.P.H. 518 BEDFORD, MA
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LAST REPORT, PROGRESS 08/90

Receptor Localization in Normal, Experimental and Pathological States
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PROJECT 1
LAST REPORT, FINAL 07/90

Biochemical Markers of the Alzheimer's Disease
olicer, Ladislav, M.D., Ph.D. 518 BEDFORD, MA
PROJECT 2
LAST REPORT, PROGRESS 07/90

An Open Trial of Propranolol in the Treatment of Motor Restlessness in
Alzheimer's Disease
olicer, Ladislav, M.D., Ph.D. 518 BEDFORD, MA
PROJECT 6
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Monoamines in Alzheimer's Disease
Volicer, Ladislav, M.D., Ph.D. 518 BEDFORD, MA
PROJECT 9
LAST REPORT, FINAL 07/90

Circadian Rhythms in Alzheimer's Disease
Volicer, Ladislav, M.D., Ph.D. 518 BEDFORD, MA
PROJECT 11
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The Differential Diagnosis of Organic Brain Syndromes
Volicer, Ladislav, M.D., Ph.D. 518 BEDFORD, MA
PROJECT 16
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Receptor Localization in Normal, Experimental and Pathological States
Volicer, Ladislav, M.D., Ph.D. 518 BEDFORD, MA
PROJECT 19
LAST REPORT, INITIAL 08/90

Dopamine-mimetics in the treatment of subcortical dementia in progressive
supranuclear palsy and the cortical dementia of Alzhpimer's disease
Albert, Martin L., M.D., Ph.D. 523 BOSTON, MA
PROJECT 3
LAST REPORT, PROGRESS 03/84

Neuropsychology of Perceptual and Cognitive Functions
Berman, Marlene Oscar, Ph.D. 523 BOSTON, MA
PROJECT 1
LAST REPORT, PROGRESS 01/89

The Gratifications and Frustrations of Older Women Caring for a Spouse with
Alzheimer's Disease
Knoefel, Janice E., M.D. 523 BOSTON, MA
PROJECT 6
LAST REPORT, PROGRESS 01/89

Alzheimer Care Units: Comparison of VA, State and Private
Knoefel, Janice E., M.D. 523 BOSTON, MA
PROJECT 7
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Simulated Presence Therapy for Treatment of Alzheimer's Disease
McIntyre, Kevin M., M.D. 525 BROCKTON, MA
PROJECT 23
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  Cognitive Deficit Identification in Dementia
ilberg, William P., Ph.D.                      525 BROCKTON, MA
                    PROJECT    1
                LAST REPORT, PROGRESS 03/89

  Phase III Study of Nimodipine in Retardation of Symptoms of Dementia
Walshe, Thomas M., M.D.                        525 BROCKTON, MA
                    PROJECT   14
                LAST REPORT, PROGRESS 05/89

  Double Blind, Placebo Controlled Study of the Safety and Efficacy of 4.5 and
  9.0 mg/day of Hydergine in Alzheimer's Disease
Walshe, Thomas M., M.D.                        525 BROCKTON, MA
                    PROJECT   16
                LAST REPORT, FINAL            11/89

  A Cholinergic Basis for Rational Treatment of Memory Deficits in the Aged
Davis, Kenneth L., M.D.                        526 BRONX, NY
                    PROJECT    1
                LAST REPORT, PROGRESS 10/90

  General Studies of Human Blood Chemistry
Davis, Kenneth L., M.D.                        526 BRONX, NY
                    PROJECT    4
                LAST REPORT, PROGRESS 06/90

  Cholinergic Treatment of Memory Deficits in the Aged
avis, Kenneth L., M.D.                         526 BRONX, NY
                    PROJECT   18
                LAST REPORT, PROGRESS 10/90

  Postmortem Brain Receptors in Schizophrenia and Alzheimer's Disease
o, Grant N., M.D.                              526 BRONX, NY
                    PROJECT    1
                LAST REPORT, INITIAL  04/90

  Aging and Alzheimer's Disease: Cognitive Studies
ohs, Richard C., Ph.D.                         526 BRONX, NY
                    PROJECT    1
                LAST REPORT, PROGRESS 09/90

  Olfaction and Dementia
erby, Michael J., M.D.                         526 BRONX, NY
                    PROJECT    1
                LAST REPORT, INITIAL  05/90

  Free Dolichol Levels in Alzheimer's Disease
aguthu, Simhachalam, M.B.B.S.                  527 BROOKLYN, NY
                    PROJECT    2
                LAST REPORT, FINAL            01/91

  A Study of Tacrine in Alzheimer's Disease Patients
lade, Jr., Walter R., M.D.                     527 BROOKLYN, NY
                    PROJECT    1
                LAST REPORT, INITIAL  03/90

  A Double-Blind Placebo-Controlled Study of Tacrine in Alzheimer's Disease
ershey, Linda A., M.D., Ph.D.                  528 BUFFALO, NY
                    PROJECT    8
                LAST REPORT, INITIAL  04/90

  Intraventricular Bethanechol in Alzheimer Disease: A Follow-up Study
ummings, Jeffrey L., M.D.                      530 WEST LOS ANGELES (BRENTWOOD DIV
                    PROJECT    6
                LAST REPORT, FINAL            03/90
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Subtle Cobalamin (Vitamin B12) Deficiency and Dementia
mmings, Jeffrey L., M.D. 530 WEST LOS ANGELES (BRENTWOOD DIV
PROJECT 9
LAST REPORT, FINAL 02/91

Depression in Dementia of the Alzheimer Type
ummings, Jeffrey L., M.D. 530 WEST LOS ANGELES (BRENTWOOD DIV
PROJECT 10
LAST REPORT, PROGRESS 04/90

A Placebo-Controlled Study of Acetyl-1-Carnitine in Patients with Alzheimer's Disease
ummings, Jeffrey L., M.D. 530 WEST LOS ANGELES (BRENTWOOD DIV
PROJECT 11
LAST REPORT, INITIAL 04/90

Cholinergic Therapy for Behavioral Disturbances in Alzheimer's Disease
ummings, Jeffrey L., M.D. 530 WEST LOS ANGELES (BRENTWOOD DIV
PROJECT 12
LAST REPORT, INITIAL 04/90

Alzheimer Type Dementia: A Biobehavioral Family Study
arvik, Lissy F., M.D., Ph.D. 530 WEST LOS ANGELES (BRENTWOOD DIV
PROJECT 11
LAST REPORT, PROGRESS 10/90

A Family Study of Senile Dementia, Alzheimer Type
Jarvik, Lissy F., M.D., Ph.D. 530 WEST LOS ANGELES (BRENTWOOD DIV
PROJECT 12
LAST REPORT, PROGRESS 10/90

The Efficacy of THA in Alzheimer's Disease and Senile Dementia of the Alzheimer Type
Jarvik, Lissy F., M.D., Ph.D. 530 WEST LOS ANGELES (BRENTWOOD DIV
PROJECT 17
LAST REPORT, PROGRESS 07/90

Nicotine as a Cognitive Enhancer in Patients with Alzheimer's Disease
Jarvik, Murray E., M.D., Ph.D. 530 WEST LOS ANGELES (BRENTWOOD DIV
PROJECT 28
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Neurological Imaging in Multi-Infarct Dementia
ahler, Michael E., M.D. 530 WEST LOS ANGELES (BRENTWOOD DIV
PROJECT 3
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Diagnosis of Alzheimer Disease: Continuation of a Follow-up Study
atsuyama, Steven S., Ph.D. 530 WEST LOS ANGELES (BRENTWOOD DIV
PROJECT 3
LAST REPORT, FINAL 06/90

Positron Emission Tomography (PET) Correlates of Cognitive Decline in Alzheimer Relatives
atsuyama, Steven S., Ph.D. 530 WEST LOS ANGELES (BRENTWOOD DIV
PROJECT 5
LAST REPORT, PROGRESS 11/90

Growth Factor Metabolism and Memory Loss
oy, Rebekah, Ph.D. 532 CANANDAIGUA, NY
PROJECT 1
LAST REPORT, PROGRESS 10/89

Cholinergic Sensitivity in Normal Aging and Alzheimer's Disease
impson, Dale M., M.D., Ph.D. 541 CLEVELAND, OH
PROJECT 1
LAST REPORT, FINAL 10/89

Cognitive Retraining with Alzheimer's Patients
[illegible], Patrick A., Ph.D. 542 COATESVILLE, PA
PROJECT 1
LAST REPORT, FINAL 03/90

Extrapyramidal Damage and Associative Learning
urkin, Martin W., M.D. 544 COLUMBIA, SC
PROJECT 1
LAST REPORT, PROGRESS 08/90

Topographic EEG-Analysis
amsey, R. Eugene, M.D. 546 MIAMI, FL
PROJECT 8
LAST REPORT, PROGRESS 11/87

Predicting the Decision to Institutionalize Alzheimer's Patients
usby, Rebecca M., Ph.D. 553 ALLEN PARK, MI
PROJECT 1
LAST REPORT, FINAL 10/89

Multidisciplinary Validation of Two Dementia Categories
erma, Narayan P., M.D. 553 ALLEN PARK, MI
PROJECT 2
LAST REPORT, PROGRESS 05/90

Neurobiology of Age-Induced Changes in Hippocampal Function
ose, Gregory M., Ph.D. 554 DENVER, CO
PROJECT 1
LAST REPORT, PROGRESS 03/90

Validation of Psychologic and/or Electrophysiologic Tests
einer, Richard D., M.D., Ph.D. 558 DURHAM, NC
PROJECT 11
LAST REPORT, PROGRESS 12/90

Electrophysiologic Studies in Alzheimer's Disease
ayer, Joseph H., M.D. 578 HINES, IL
PROJECT 1
LAST REPORT, FINAL 03/91

Alzheimer's Disease Patient Registry
allace, Robert Bruce, M.D. 584 IOWA CITY, IA
PROJECT 2
LAST REPORT, PROGRESS 10/90

Measurement of Serine Proteases, Serine Protease Inhibitors (Serpins) and Thrombospondin in Spinal Fluid
estoff, Barry W., M.D. 589 KANSAS CITY, MO
PROJECT 10
LAST REPORT, PROGRESS 12/90

Target Serine Proteases of Brain Serpins: Clues to Amyloid in Alzheimers Disease
estoff, Barry W., M.D. 589 KANSAS CITY, MO
PROJECT 12
LAST REPORT, INITIAL 06/90

A Long Term Tolerance and Safety Study of HP 029 (1,2,3,-Tetrahydro-9-Aminoacridin-1-OL Maleate) in Pts w/Alzheimer's Disease
iron, Louis T., M.D. 589 KANSAS CITY, MO
PROJECT 9
LAST REPORT, INITIAL 08/90

Language Changes Related to AIDS Dementia Complex
ynette, Donna, M.S.W. 589 KANSAS CITY, MO
PROJECT 1
LAST REPORT, PROGRESS 01/90

Transferrin and Its Receptor in the Brain in Aging and Alzheimer's Disease
ombas, Otto F., M.D. 595 LEBANON, PA
PROJECT 1
LAST REPORT, PROGRESS 10/89

Research in Alzheimers Disease
e Kosky, Steven T., M.D. 596 LEXINGTON, KY
PROJECT 9
LAST REPORT, FINAL 06/90

Disruptive Behavior in the Nursing Home Resident with Dementia
arson, Craig N., M.D. 598 LITTLE ROCK, AR
PROJECT 4
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Platelet Membrane Fluidity and Lipid Content in Alzheimer's Disease
iem, Phoa H., M.D. 598 LITTLE ROCK, AR
PROJECT 2
LAST REPORT, PROGRESS 05/90

Diagnostic Criteria for Alzheimer's Disease
oodley, Eugene L., M.D. 600 LONG BEACH, CA
PROJECT 7
LAST REPORT, PROGRESS 04/90

Analysis of Calcium Homeostasis in Alzheimer's Disease
Coodley, Eugene L., M.D. 600 LONG BEACH, CA
PROJECT 9
LAST REPORT, FINAL 10/90

The Role of Aluminum in Brain Diseases. Especially Alzheimer's Disease
loodworth, Jr., J. M. B., M.D. 607 MADISON, WI
PROJECT 2
LAST REPORT, PROGRESS 05/90

SPECT Studies of rCBF in Dementia
agust, William J., M.D. 612 MARTINEZ, CA
PROJECT 1
LAST REPORT, PROGRESS 12/86

Cerebral Metabolic Indices of Dementia Pathophysiology
'agust, William J., M.D. 612 MARTINEZ, CA
PROJECT 2
LAST REPORT, INITIAL 11/85

Semantic Memory In Alzheimers Disease: Activation and Inhibition
ber, Beth A., Ph.D. 612 MARTINEZ, CA
PROJECT 2
LAST REPORT, PROGRESS 10/90

Matched Tasks for Comparing Intellectual Impairment in Primary Degenerative Dementia and Parkinson's Disease
hristensen, Kathy J., Ph.D. 618 MINNEAPOLIS, MN
PROJECT 5
LAST REPORT, FINAL 10/90

Haloperidol Levels in Schizophrenia and Alzheimer's Disease
ysken, Maurice, M.D. 618 MINNEAPOLIS, MN
PROJECT 1
LAST REPORT, PROGRESS 05/90

Titration of Haloperidol Dose Using Plasma Levels
ysken, Maurice, M.D. 618 MINNEAPOLIS, MN
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LAST REPORT, FINAL 06/90

Open Pilot Study of BMY-21502 in Patients with Dementia
ysken, Maurice, M.D. 618 MINNEAPOLIS, MN
PROJECT 6
LAST REPORT, PROGRESS 07/90

Oxiracetam in the Studty of Alzheimer's Dementia
ysken, Maurice, M.D. 618 MINNEAPOLIS, MN
PROJECT 9
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Long Term Use of Oxiracetam in the Treatment of Alzheimer's Disease
ysken, Maurice, M.D. 618 MINNEAPOLIS, MN
PROJECT 11
LAST REPORT, FINAL 01/91

An Adapted Work Program for Persons with Mild to Moderate Dementia
bbitt, Brenda J., R.N., M.S. 618 MINNEAPOLIS, MN
PROJECT 1
LAST REPORT, PROGRESS 05/90

Consortium for Establishing an Alzheimer's Disease Registry
ortimer, James A., Ph.D. 618 MINNEAPOLIS, MN
PROJECT 6
LAST REPORT, PROGRESS 08/90

Soft Drinks and Alzheimers' Disease
agendran, Tiruvannamalai, M.D. 619 MONTGOMERY, AL
PROJECT 1
LAST REPORT, PROGRESS 06/90

Chronic Lesions of the Blood Brain Barrier in Alzheimer's Disease
ndorn, Anne C., M.D. 620 MONTROSE, NY
PROJECT 1
LAST REPORT, FINAL 09/90

A Study Comparing the Course of Patients with Dementia Cared for in Institutions versus at Home
Hamdy, Ronald C., M.D. 621 MOUNTAIN HOME, TN
PROJECT 8
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The Effect of Mental Impairment on the Time Needed to Care for Patients with Impaired Mental Functions
Hamdy, Ronald C., M.D. 621 MOUNTAIN HOME, TN
PROJECT 13
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  Time Devoted to Nursing Care on Alzheimer's Units and Intermediate Care
  Units and with Patients of Varying Mobility
mith, Beverly J., R.N.                          621 MOUNTAIN HOME, TN
                     PROJECT    2
                LAST REPORT, PROGRESS 04/90

  The Differential Diagnosis of Organic Brain Syndromes
eltzer, Benjamin, M.D.                          629 NEW ORLEANS, LA
                     PROJECT    1
                LAST REPORT, PROGRESS 03/90

  A Double-Blind Placebo-Controlled Study of Tacrine (CL-970) in Alzheimer's
  Disease
eltzer, Benjamin, M.D.                          629 NEW ORLEANS, LA
                     PROJECT    3
                LAST REPORT, INITIAL  07/90

  Memory and Response Bias in Dementia and Depression
orwin, June, Ph.D.                              630 NEW YORK, NY
                     PROJECT    2
                LAST REPORT, PROGRESS 10/89

  Scopolamine Effects on Learning and Memory
orwin, June, Ph.D.                              630 NEW YORK, NY
                     PROJECT    4
                LAST REPORT, PROGRESS 10/89

  Membrane Fluidity in Neuropsychiatric Disorders
yer, Helena I., Ph.D.                           630 NEW YORK, NY
                     PROJECT    3
                LAST REPORT, FINAL              08/90

  A CSF Bank in Aging and Dementia Research
olkin, Adam, M.D.                               630 NEW YORK, NY
                     PROJECT    9
                LAST REPORT, INITIAL  06/90

  Polyphosphoinositides and Neurotransmitters in Alzheimer's Disease
Chen, Stephen S., M.D., Ph.D.                   640 PALO ALTO, CA
                     PROJECT    2
                LAST REPORT, FINAL              04/90

  Alzheimer's in a Parent: Impact on Young Adult Children
avies, Helen D., R.N., M.S.                     640 PALO ALTO, CA
                     PROJECT    1
                LAST REPORT, FINAL              03/91

  Sexual Dysfunction in Individuals with Memory Impairment
avies, Helen D., R.N., M.S.                     640 PALO ALTO, CA
                     PROJECT    7
                LAST REPORT, PROGRESS 02/90

  Caregiving for Alzheimer's Patients
efriese, Alice M., R.N.                         640 PALO ALTO, CA
                     PROJECT    1
                LAST REPORT, FINAL              04/91

  Correlated Chemical and Morphological Study of Fibrous Proteins in CNS
Eng, Lawrence F., Ph.D.                         640 PALO ALTO, CA
                     PROJECT    2
                LAST REPORT, PROGRESS 0[illegible]

  Can Astrocyte Scar Formation be Modified or Delayed by Inhibiting GFAP
  Synthesis with Antisense mRNA to GFAP?
Eng, Lawrence F., Ph.D.                         640 PALO ALTO, CA
                     PROJECT    5
                LAST REPORT, INITIAL  03/89

  Enhancing Caregivers' Capacity to Care for Frail Elders
Gallagher-Thompson, Dolores E., Ph.D.           640 PALO ALTO, CA
                     PROJECT    4
                LAST REPORT, FINAL              11/90

  M.H. Risk Factors in Caregiving: Assessment and Intervention
Gallagher-Thompson, Dolores E., Ph.D.           640 PALO ALTO, CA
                     PROJECT    5
                LAST REPORT, PROGRESS 03/90

  The Impact of Psychoeducational Interventions on Problem Solving Skills in
  "Caregivers"
Gallagher-Thompson, Dolores E., Ph.D.           640 PALO ALTO, CA
                     PROJECT    7
                LAST REPORT, FINAL              11/90
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Brain & Behavioral Changes in Aging and Dementia
fefferbaum, Adolf, M.D. 640 PALO ALTO, CA
PROJECT 6
LAST REPORT, PROGRESS 05/90

Cognitive Functions in Drug States
inklenberg, Jared R., M.D. 640 PALO ALTO, CA
PROJECT 4
LAST REPORT, PROGRESS 01/89

Cognitive Functioning in Early Alzheimers Disease
Tinklenberg, Jared R., M.D. 640 PALO ALTO, CA
PROJECT 12
LAST REPORT, PROGRESS 01/89

Hydergine and Behavioral Performance
Tinklenberg, Jared R., M.D. 640 PALO ALTO, CA
PROJECT 14
LAST REPORT, PROGRESS 07/89

Effects of Acetyl-L Carnitine on Cognitively Impared Individuals
Tinklenberg, Jared R., M.D. 640 PALO ALTO, CA
PROJECT 15
LAST REPORT, PROGRESS 07/89

Stanford Alzheimer's Disease Diagnostic and Treatment Center
Tinklenberg, Jared R., M.D. 640 PALO ALTO, CA
PROJECT 17
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Amyloid Gene Expression in Alzheimer's Disease
Tinklenberg, Jared R., M.D. 640 PALO ALTO, CA
PROJECT 22
LAST REPORT, INITIAL 07/90

Functional Parameters in the Elderly
Winograd, Carol M., M.D. 640 PALO ALTO, CA
PROJECT 2
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Medical Correlates of Primary Degenerative Dementia
inograd, Carol M., M.D. 640 PALO ALTO, CA
PROJECT 3
LAST REPORT, PROGRESS 03/91

Clinical Research Center for the Study of Senile Dementia
esavage, Jerome A., M.D. 640 PALO ALTO, CA
PROJECT 11
LAST REPORT, PROGRESS 11/90

Alzheimer's Disease Research Program
olstein, Marshall, M.D. 641 PERRY POINT, MD
PROJECT 1
LAST REPORT, PROGRESS 11/89

A Search for Event-Related Potentials Indexing Cross-Modal Interaction
Stowe, Robert M., M.D. 645 PITTSBURGH, (HD), PA
PROJECT 1
LAST REPORT, INITIAL 01/90

Immunochemical Characterization of Macromolecules in the Spinal Fluid of
Patients with Alzheimer's Disease
arry, Ronald A., Ph.D. 648 PORTLAND, OR
PROJECT 3
LAST REPORT, INITIAL 01/89

Behavioral and Neural Correlates of Apraxia in Patients with Dementia of the
Alzheimer's Type and Stroke
Binder, Laurence M., Ph.D. 648 PORTLAND, OR
PROJECT 3
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Alzheimer Disease Research Center - Genetic Heterogeneity
Coull, Bruce M., M.D. 648 PORTLAND, OR
PROJECT 4
LAST REPORT, INITIAL 08/88

Study of Blood Viscosity Factors in Alzheimer's Disease and Multi-Infarct
Dementia
Coull, Bruce M., M.D. 648 PORTLAND, OR
PROJECT 5
LAST REPORT, INITIAL 08/88

Alzheimer Disease Research Center - Clinical Heterogeneity
aye, Jeffrey, M.D. 648 PORTLAND, OR
PROJECT 1
LAST REPORT, INITIAL 01/89

Molecular Forms of Acetylcholinesterase in Cerebrospinal Fluid in Alzheimer's Disease and Control Patients
eacock, John H., M.D., Ph.D. 654 RENO, NV
PROJECT 5
LAST REPORT, PROGRESS 11/88

Psychological Characteristics of Alzheimer's Disease and Senile Dementia
atson, Charles G., Ph.D. 656 ST CLOUD, MN
PROJECT 38
LAST REPORT, PROGRESS 01/90

Mechanism of Degeneration of Epinephrine Neurons in Alzheimer's Dementia
urke, William J., M.D., Ph.D. 657 ST LOUIS, MO
PROJECT 1
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Mechanism of Degeneration of Epinephrine Neurons in Alzheimer's Disease
attammal, Michael B., Ph.D. 657 ST LOUIS, MO
PROJECT 1
LAST REPORT, INITIAL 02/90

Vasopressin as a Marker for Alzheimer's Disease
olomon, Kenneth, M.D. 657 ST LOUIS, MO
PROJECT 1
LAST REPORT, INITIAL 05/90

Mechanism of Degeneration of Cholinergic Neurons in Alzheimer's Disease
trong, John Randolph, Ph.D. 657 ST LOUIS, MO
PROJECT 3
LAST REPORT, PROGRESS 04/90

Evaluation of a Behavior Checklist for Patients Affected with Alzheimer's Disease and Other Dementia-Producing Illnesses
Ford, Mavis C., R.N. 658 SALEM, VA
PROJECT 2
LAST REPORT, PROGRESS 06/90

Effects of Muscarinic Blocking Agents on Human Info Processing
allaway, Enoch, M.D. 662 SAN FRANCISCO, CA
PROJECT 7
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Huntington's Disease and Dementia Clinical Research Fund
ird, Thomas, M.D. 663 SEATTLE, WA
PROJECT 4
LAST REPORT, PROGRESS 02/91

Genetic Linkage Analysis of Familial Alzheimer's Disease
ird, Thomas, M.D. 663 SEATTLE, WA
PROJECT 10
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Genetic Studies in Familial Dementia
ird, Thomas, M.D. 663 SEATTLE, WA
PROJECT 11
LAST REPORT, FINAL 11/90

Eye Movements in Neuropsychiatric Disorders
ommer, Daniel W., M.D. 663 SEATTLE, WA
PROJECT 1
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Neuroendocrine Regulation in Alzheimer's Disease
eskind, Elaine R., M.D. 663 SEATTLE, WA
PROJECT 1
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Neuropeptides and Catecholamines in Aging, Depression, and Dementia
askind, Murray, M.D. 663 SEATTLE, WA
PROJECT 10
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A Randomized, Placebo-Controlled Study of DuP-996... in Patients with AD and SDAT
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PROJECT 12
LAST REPORT, INITIAL 10/89

The Efficacy of Controlled-Release Oral Physostigmine in AD and SDAT
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PROJECT 13
LAST REPORT, INITIAL 10/89

A Double-Blind Placebo-Controlled Multicenter Study of Tacrine in AD
askind, Murray, M.D. 663 SEATTLE, WA
PROJECT 14
LAST REPORT, INITIAL 10/89

Mechanisms of Post-Synaptic Integration in Neocortex
pain, William, M.D. 663 SEATTLE, WA
PROJECT 1
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Biochemical and Genetic Studies of Beta-Adrenergic Function in Human Lymphocytes from Subjects with Alzheimer's Disease and the Down Syndrome
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PROJECT 4
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Cognitive Processes after Brain Damage
utters, Nelson M., Ph.D. 664 SAN DIEGO, CA
PROJECT 1
LAST REPORT, PROGRESS 02/91

Clinico-Pathological Correlates in DAT
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PROJECT 6
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Neuropathological-Memory Correlates in DAT
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PROJECT 7
LAST REPORT, PROGRESS 02/91

Visuospatial Dysfunction in Dementia
elis, Dean C., Ph.D. 664 SAN DIEGO, CA
PROJECT 2
LAST REPORT, PROGRESS 02/91

Chronobiology of Demented, Depressed, & Normal Subjects
illin, John C., M.D. 664 SAN DIEGO, CA
PROJECT 3
LAST REPORT, PROGRESS 03/90

Ambulatory Circadian Rhythm Studies in Elderly Depressives and Demented Patients
illin, John C., M.D. 664 SAN DIEGO, CA
PROJECT 6
LAST REPORT, FINAL 03/90

Alzheimer Caregiver Coping-Mental and Physical Health
rant, Igor, M.D. 664 SAN DIEGO, CA
PROJECT 3
LAST REPORT, PROGRESS 03/91

Psychosis in Dementia: Relationships to Clinical Course and Cognitive Studies
este, Dilip V., M.D. 664 SAN DIEGO, CA
PROJECT 6
LAST REPORT, FINAL 09/90

Ag Models: Importance of Noradrenergic Loss
anglais, Philip J., Ph.D. 664 SAN DIEGO, CA
PROJECT 5
LAST REPORT, FINAL 03/91

Pharmacology of Basal Forebrain Lesion-Induced Memory Loss
hal, Leon J., M.D. 664 SAN DIEGO, CA
PROJECT 1
LAST REPORT, PROGRESS 02/91

Effects of Cholinomimetic Drugs in Alzheimer's Disease
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PROJECT 2
LAST REPORT, FINAL 02/91

The Safety and Efficacy of THA in Alzheimer's Disease and Senile Dementia of the Alzheimer Type
hal, Leon J., M.D. 664 SAN DIEGO, CA
PROJECT 6
LAST REPORT, PROGRESS 02/91

An Open Label Rechallenge Study of the Safety of Tacrine (CI970) in Patients with Alzheimer's Disease
Thal, Leon J., M.D. 664 SAN DIEGO, CA
PROJECT 9
LAST REPORT, FINAL 02/91

Tomographic Imaging of the Human Brain with I-123 IMP
Cohen, Marvin B., M.D. 665 SEPULVEDA, CA
PROJECT 6
LAST REPORT, PROGRESS 07/90

Double-Blind Crossover Study of Amodiaquine in the Treatment of Alzheimer's Disease & Senescent Forgetfulness
Fitten, L. Jaime, M.D. 665 SEPULVEDA, CA
PROJECT 2
LAST REPORT, PROGRESS 01/91

Electrophysiologic Markers & Cholinergic Treatment in Alzheimers Disease
Fitten, L. Jaime, M.D. 665 SEPULVEDA, CA
PROJECT 4
LAST REPORT, PROGRESS 01/91

Direct & Laboratory Evaluation of Driving Skills of Alzheimer & Related Disorders Patients
Fitten, L. Jaime, M.D. 665 SEPULVEDA, CA
PROJECT 7
LAST REPORT, INITIAL 02/91

Language Function in Dementia
Hanson, Wayne R., Ph.D. 665 SEPULVEDA, CA
PROJECT 3
LAST REPORT, PROGRESS 11/90

Memory Loss in Aging, Brain Diseases, and Alcoholism Alcoholism
Hanson, Wayne R., Ph.D. 665 SEPULVEDA, CA
PROJECT 4
LAST REPORT, PROGRESS 04/91

Sleep Quality and Sleepiness in Alzheimer's Caregivers
Riccio, Patricia A., R.N. 665 SEPULVEDA, CA
PROJECT 1
LAST REPORT, PROGRESS 06/90

Memory Loss in Aging, Brain Diseases, and Alcoholism
Riege, Walter, Ph.D. 665 SEPULVEDA, CA
PROJECT 6
LAST REPORT, FINAL 01/90

Episodes of Delirium in Older Surgical Patients
Baker, F. M., M.D., M.P.H. 671 SAN ANTONIO, TX
PROJECT 2
LAST REPORT, FINAL 11/90

Music Therapy Intervention and Response in the Alzheimer Patient
Clair, Alicia Ann, Ph.D. 677 TOPEKA, KS
PROJECT 1
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Vibrotactile versus Auditory Stimuli Preference in Alzheimers Patients
Clair, Alicia Ann, Ph.D. 677 TOPEKA, KS
PROJECT 2
LAST REPORT, FINAL 06/90

The Effect of Vibrotactile versus Auditory Stimulation on Eye Contact in Severely Regressed Alzheimers Patients
Clair, Alicia Ann, Ph.D. 677 TOPEKA, KS
PROJECT 3
LAST REPORT, INITIAL 09/89

The Effect of Music on Agitated Behavior in Severely Regressed Persons with Dementia of the Alzheimer's Type
Clair, Alicia Ann, Ph.D. 677 TOPEKA, KS
PROJECT 4
LAST REPORT, INITIAL 04/90

Use of Action Toys in Treatment of Severely Regressed Alzheimer Type Dementia Patients
napp, Roberta 677 TOPEKA, KS
PROJECT 1
LAST REPORT, INITIAL 04/90

Evaluation of Safety and Efficacy of L-Glutamate in Alzheimer's Disease
eutsch, Stephen I., M.D., Ph.D. 688 WASHINGTON, DC
PROJECT 3
LAST REPORT, PROGRESS 02/90

Pilot Study for Evaluation of Milacemide in the Treatment of Alzheimer's Disease
eutsch, Stephen I., M.D., Ph.D. 688 WASHINGTON, DC
PROJECT 5
LAST REPORT, FINAL 12/89

Anticipatory Grief in the Wives of Patients with Dementia
hout, Susan K., M.D., M.P.H. 688 WASHINGTON, DC
PROJECT 1
LAST REPORT, FINAL 06/90

Effects of DHEA on T Cells in Alzheimer's Patients
akinodan, Takashi, Ph.D. 691 WEST LOS ANGELES (WADSWORTH DIV
PROJECT 8
LAST REPORT, FINAL 10/90

Assessment of a Calcium Channel Blocker in the Treatment of Primary Degenerative Dementia
yndulko, Karl, Ph.D. 691 WEST LOS ANGELES (WADSWORTH DIV
PROJECT 8
LAST REPORT, PROGRESS 11/86

Role of Glutamate in Alzheimer's Disease
ntuono, Piero, M.D. 695 MILWAUKEE, WI
PROJECT 1
LAST REPORT, FINAL 08/90

Peptide Regulation of the Hypothalamic-Pituitary-Adrenocortical Axis in Major Depression and Alzheimer's Disease
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PROJECT 1
LAST REPORT, FINAL 06/90

RESPONSES

SENATOR KERREY: How long does it usually take you to respond to a veteran?

ANSWER: A large portion of veterans' correspondence is answered in the Veterans Services Divisions (VSD) at Veterans Benefits Administration's (VBA) 58 regional offices. In FY 1990, 427,466 (97.4 percent) of the 438,741 pieces of incoming correspondence were answered within 10 days of receipt in VSD. Through March of FY 1991, 214,165 (96.2 percent) of the 222,616 pieces of incoming correspondence were answered within 10 days of receipt in VSD.

SENATOR KERREY: Do you have a goal/management objective or some other guideline for a reasonable time to reply?

ANSWER: Timeliness of responses to incoming correspondence is measured at each of the 58 VBA regional offices. Timeliness is considered acceptable when 90 percent of final responses are completed within 10 full workdays of receipt in VSD. Stations are encouraged to use interim replies to acknowledge receipt of correspondence which cannot be answered within the standard, but the date of the final reply is used to measure timeliness.

SENATOR KERREY: How long does it usually take you to reply to a Member of Congress?

ANSWER: Two-thirds of the letters received from Members of Congress receive a reply from the Secretary within the 30 day goal. The Secretary has placed a high priority on responsiveness to Congress. Timeliness has improved significantly over the past year. For example, 67% of these letters were signed within 30 days during the first quarter of FY 1991, compared with 52% during the first quarter of FY 1990.

SENATOR KERREY: How long does it usually take you to reply to a member of this subcommittee?. Why did it take two months to reply to my January letter?

ANSWER: Senator Kerrey's letter of January 7, 1991, was received in VA on January 15. It involved two programs, the State Home Grant program and the National Cemetery System. The letter was referred to the Veterans Health Services and Research Administration, which administers the State Home Grant program, to coordinate the reply. When the proposed response was received in the Secretary's office, some information on the State Grant Program had recently been updated. That was incorporated into the final letter, to assure that the data provided was accurate.

SENATOR KERREY: How long do you think it would have taken for you to reply to the January letter without prodding from my staff?

ANSWER: We regret the delay in responding to Senator Kerrey. Our intent was to provide the most current information available, and we will try to reply promptly to any future inquiries.

FORT MCPHERSON

SENATOR KERREY: According to veterans in my state, there are approximately 900 burial sites remaining in the area prepared for burial.

a. Do you agree with that assessment?

b. Please explain why or why not.

ANSWER: That estimate is correct. As of March 31, 1991, there were 911 unoccupied, unreserved casket sites.

SENATOR KERREY: Burials last year were close to 160. Some increase is anticipated in view of the aging veteran population.

a. What is your estimate for the length of time that the 900 sites will be available?

b. Please explain how you calculated this.

ANSWER: There were 152 burials during FY 1990 which required a total of 119 unocupied sites (104 casket and 15 sites suitable for cremated remains). There were 33 interments with relatives already buried in the cemetery.

The currently available 911 gravesites will last through FY 1997. This is based on projected interments of 160 in 1991 rising to 214 by 1997, with corresponding casket gravesite usage of 114 unoccupied sites in 1991 rising to 141 in 1997.

SENATOR KERREY: There are six acres currently not used for burial. I have been told that a portion of this is below the water table.

a. What surveys, tests have been conducted to determine the portion which might be below the water table?

b. What were the results of those tests?

c. Do you use such land for burial in other cemeteries?

ANSWER: A portion of the cemetery's six acres which have not yet been developed for burial is below the water table. Test graves have been dug randomly in this acreage by cemetery personnel to determine suitability for burial. Some of these test graves partially filled with ground water shortly after being opened. It is estimated that approximately one and one-half acres may be affected by the high ground water. Current practices in the National Cemetery System restrict the use of graves with standing water.

SENATOR ~~KERREY: Part~~ of the old cemetery wall collapsed earlier and the bricks and mortar were buried.

a. How extensive is the acreage affected by this?

b. What studies, tests have you conducted to determine how large this is and what is there?

c. How would you prepare this land for burial?

d. What is the estimated cost of removing this material and preparing the land for burial?

ANSWER: Large portions of the cemetery's original brick enclosure wall were dismantled when the cemetery was under the jurisdiction of the Department of the Army. Bricks and mortar, as well as garbage, have been uncovered in a portion of the undeveloped six acres which was used as a landfill for cemetery refuse. Test pits were dug with a backhoe and the area probed to estimate the extent of the landfill. Cemetery staff determined the landfill to be approximately two feet below the surface and approximately seven feet thick. The landfill is estimated to cover one acre.

Current practice involves removal of all unsuitable material and replacement with suitable fill and topsoil necessary to support turf growth at the time the land is developed for burials. A rough estimate of preparing this acre for burials, based on current information available, could exceed $150,000, depending upon the extent of excavation required.

SENATOR KERREY: Part of the six acres currently not in use was reportedly used as a landfill.

a. Have you conducted any tests to determine whether or not there was such use and how extensive it was:

b. What were the results or your tests?

c. What is involved in making this suitable for burial?

d. What is the estimated cost of making it suitable for burial?

ANSWER: This is the same acre discussed in the previous question.

SENATOR KERREY: In the six acres not in use there is a row of trees used for a windbreak.

a. What would you do with this windbreak if the area were to be prepared for burial?

b. Do you believe a windbreak is necessary at this location? Why or why not?

c. If the windbreak were to be left as is, what portion of this acreage would then not be suitable for burial?

d. If the windbreak were to be thinned or moved what would be the cost of each?

ANSWER: The existing row of trees in the undeveloped 6 acres acting as a "windbreak" would not remain intact when the land is developed for burials. A few selected trees might remain in their present locations and some others relocated to the edges of developed burial areas, if moving them proves cost effective. Costs for removing trees and or relocating trees would be based on the specific tree, its size, root structure, type of equipment necessary, etc. The amount of space available for burial and the cost for elimination or movement of the trees will be determined during the design phase of the project.

Currently the area between the trees and the cemetery wall is used for storing and growing sod. The trees serve the purposes of sheltering and screening this activity. This function would be relocated to a less prominent area when the six acres are developed for burials, thereby eliminating the necessity of the row of trees. Removal of the windbreak would serve to integrate the new development with the established part of the cemetery. Existing cedar trees along the cemetery boundary would act as a windbreak and boundary definition for the entire cemetery and be supplemented as necessary by new landscaping.

SENATOR KERREY: The six acres currently not in use is outside the original wall to the cemetery. What remains of the wall is in need of remortaring. Part of the wall has, unfortunately, already fallen.

a. Do you plan to try to preserve this wall, or do you intend to allow it to continue to deteriorate?

b. Do you believe you have any responsibility for trying to maintain a wall which has historical connotations?

c. What is the projected cost of repairing the wall?
d. What would be the cost of removing it?

ANSWER: NCS plans to preserve the remaining portion of the original brick wall which surrounded the cemetery.

NCS has responsibility for ensuring that all properties under its jurisdiction, including historic sites and structures, are adequately maintained. However, priority is given to the functional needs of the cemeteries in fulfilling primary operational missions.

The current estimate for repairing the walls at Fort McPherson National Cemetery is $44,000. This includes $8,000 for approximately 211 linear feet built in 1878, and $36,000 for the remaining 1000 feet constructed between 1924 and 1940. The estimated cost of demolishing the portion of the wall which lies between the established cemetery and the undeveloped acreage is $16,000.

SENATOR KERREY: Regarding the six acres not in use outside the wall mentioned in my previous question.

a. Assuming that we want to preserve the wall, what kind of a design would you use for a cemetery which in effect is divided by the wall?

b. How many cemeteries in the system have such divisions?

ANSWER: Appropriate openings could be made in the wall to facilitate physical and visual integration of the established cemetery with the new development while retaining the character of the historic wall.

Eleven cemeteries in the system have been expanded into land outside of cemetery enclosure walls.

SENATOR KERREY: The six acres currently not in use are sometimes used for parking. The main highway which passes the cemetery is narrow. The drives through the cemetery are also narrow.

a. Do you support any parking facilities for Fort McPherson?

b. If not, why?

c. If you support them, what do you believe is an appropriate number and location?

ANSWER: We do not support construction of additional parking facilities in the Fort McPherson National Cemetery for a number of reasons. Parking facilities occupy land which can provide valuable grave space and also, unless sensitively designed, can detract from the beauty and serenity of the cemetery landscape. The volume of visitation at Fort McPherson does not warrant the dedication of space to accommodate parked cars.

Visitors are encouraged to park on roadways near burial areas for their own convenience for individual visits. Funeral attendees park along cemetery roads adjacent to the committal site. Visitors to the administration office are accommodated by curbside parking at the building. The small number of ceremonial occasions each year does not warrant construction of a parking facility for use on just those occasions. It is possible to accommodate parking along cemetery roads, which are 19 feet wide, while maintaining one passing lane.

SENATOR KERREY: Your staff has been quoted as saying there are other needs at Fort McPherson besides land acquisition.

a. What needs have been identified?

b. What is your plan for meeting these needs?

c. What is budgeted in FY 92 to meet them?

d. What do you anticipate in FY 1993, FY 94, and FY 95?

ANSWER: The Fort McPherson National Cemetery has a need for an additional $23,000 to purchase some additional pieces of equipment, seed, shrubs and trees, as well as to contract for pest control, tree trimming, and painting of the lodge and administration building. Additionally, the cemetery could utilize another $15,000 to support an additional .5 FTEE. While NCS does not have the funding flexibility in FY 1991 within existing resources to meet all the identified needs, Ft. McPherson is scheduled to receive additional funds from the proposed $3 million supplemental transfer. The available level of operational funding for this cemetery has not yet been identified for FY 1992 and beyond.

There is, however, a need for a number of minor construction projects to develop burial areas, repair and renovate buildings, construct a shop building and a committal shelter, and maintain the irrigation system. These needs total $614,500 through FY 1995, of which $193,500 is planned for FY 1992.

SENATOR KERREY: What is your policy on land acquisition at cemeteries?

a. At what point do you look at expansion of cemeteries, i.e., how close to the time they are likely to be filled?

b. Who makes this determination?

ANSWER: The Department of Veterans Affairs (VA) welcomes offers of donated land for expansion of existing national cemeteries as well as for establishment of new national cemeteries when funds have been approved for development. The land must be suitable for cemetery development and, in the case of cemetery expansion, it should be contiguous to the existing cemetery.

When conducting Environmental Impact Statements on the proposed establishment of new national cemeteries, land offered for purchase may be considered among potential sites, along with land which is offered through donation or transfer from another agency.

In expanding existing national cemeteries, VA may consider purchase of land when the following criteria are met:

o Acquisition would be cost effective and in the best interest of the Government.

o The land under consideration for purchase is suitable for cemeterial purposes and is contiguous to the existing national cemetery.

o The land is available for purchase at a fair market value.

Estimates of when gravesites in national cemeteries will be depleted are updated on a quarterly basis. When there are ten or fewer years of burial space left, we begin consideration of possibilities for expansion.

Land acquisition policies are developed by the National Cemetery System and approved by the Secretary of Veterans Affairs.

SENATOR KERREY: What is your projected backlog in the cemetery system?

a. How was this backlog determined?

b. What projects do you expect to fund in FY 92?

ANSWER: The backlog of projects in the National Cemetery System is approximately $20 million, and is comprised of needed projects which have been planned in the NCS Five-Year Facilities Plan, but remain unfunded. Fiscal year 1992 projects are currently being developed and have not yet been approved.

MEDICAL CARE

SENATOR KERREY: 1. Although your budget for medical care shows an increase of almost $1 billion, it is basically a current services budget. Much of it simply covers salary increases and inflation in the medical care area. Yet, veterans continue to tell me about:

-a- antiquated equipment
-b- lack of renovation and modernization funds
-c- lack of medical personnel, especially physicians in certain specialty areas.

How are you trying to respond to these three needs which pose a threat to quality medical care?

ANSWER: Although the medical care budget represents an increase in funding by almost a billion dollars or an amount needed to maintain current services, the increase in dollars does not in itself address the VA's commitment to fulfill its mission with greater efficiency and cost effectiveness. This budget request includes resources to make improvements in patient care environments, replace aging equipment and hire new medical care staff. The ability to do more with a current service resource increase is the result of management decisions such as utilizing more medically appropriate care setting in ambulatory care and nursing home rather than more expensive hospital care, adoption of Medicare rates for fee basis and contract hospital programs, etc.

The request level includes a capital investment program totalling $704 million, or 20 percent larger than in 1991. Of this total, over $190 million will be used to replace outdated equipment. Over $260 million and 1,285 FTE will be used to activate newly constructed facilities to improve, renovate and modernize patient environments. The requested increase includes 1,519 health care personnel to meet the recent nationwide standards to restrict resident work hours, improve their supervision and hire staff to relieve resident workloads. Additional health care staff is requested for drug abuse treatment efforts (+195 FTE), automated unit dose dispensing (+135 FTE) and expansion of Geriatric Research Education and Clinical Centers (GRECC) (+ 200 FTE).

Quality care continues to be a priority of the VA and we are taking positive steps to guarantee that the VA system is staffed with competent and skilled professional medical personnel. Is addition to the quality of care initiatives mentioned above, the VA will be improving recruitment and retention of health care personnel through pay reform for doctors and dentists.

SENATOR KERREY: 2. Is the VA, as some have suggested, being charged more for prescriptions since Medicare patients are now supposed to be receiving lowest cost drugs?

ANSWER: Section 4401 of the Omnibus Budget Reconciliation Act requires that pharmaceutical manufacturers pay a rebate to state Medicaid programs. In some cases, the amount of the rebate is related to the difference between the Average Manufacturer's Price (AMP) and the "best price" in the market. Pharmaceutical manufacturers increased many prices to favored buyers in the market (including VA) who previously had received some of the lowest prices. By raising "best prices", manufacturers are able to protect profit margins and reduce the total rebate paid to state Medicaid programs.

VA is collecting information for the General Accounting Office (GAO) and the Office of Management and Budget (OMB) on actual price increases. Early examples show price increases on individual products from zero to eight hundred percent.

CLINICAL RESEARCH

SENATOR KERREY: 1. Your budget for clinical research is static.

-a- What does this mean for individual research projects - how many on-going ones do you expect to continue?

ANSWER: Medical Research Service expects to fund 1800 investigator-initiated (merit review) and career development applications, given passage of the President's fiscal 1992 budget.

-b- How many new projects would you expect to initiate at this level?

ANSWER: Given passage of the President's Fiscal 1992 budget, Medical Research Service would expect to fund 30-40 new proposals.

-c- About how many research projects are you funding and what is the average amount of your award?

ANSWER: During fiscal year 1991 Medical Research Service expects to fund approximately 2150 applications. This number will drop to 1800 in Fiscal Year 1992, given passage of the President's FY 1992 budget. The average first year direct cost of a merit review project is $80,000.

SENATOR KERREY: 2. Do you have priority areas for clinical research?

-a- What are these areas?

-b- How were they established?

ANSWER: Medical Research Service established de facto priority areas for clinical research by funding research centers for the study of schizophrenia, alcoholism, and AIDS. These areas were selected by the Central Office research leadership because of their obvious importance to the veteran patient population. Solicitations were issued to VA medical centers inviting proposals for research centers, and proposals were recommended for funding by scientific peer review groups.

Research on aging is also given special attention through the GRECC program.

SENATOR KERREY: 3. Clinical research has traditionally been viewed as an incentive which has helped VA attract and retain physicians. Do you see such research as continuing to serve a significant function here?

ANSWER: Yes, we believe (and our advisory committee concurs) that clinical research, and for that matter any other research in which physicians participate, serve to attract and retain high quality-physicians in VA.

VA has long played an important role in clinical research, and we intend to continue and develop this role to the greatest extent possible.

QUESTIONS SUBMITTED BY SENATOR GARN

VETERANS BEING TREATED FOR THEIR SERVICE-CONNECTED CONDITION

SENATOR GARN: In response to my questions in last year's record, VA presented data from the three largest VA inpatient programs which indicated that veterans being treated for a service-connected condition accounted for only 10.7% of hospital discharges. That means that over 89% of the patients treated at these hospitals were treated for conditions unrelated to their military service. I understand that you do not track this data for outpatient visits. Do you plan on tracking the outpatient data in the future?

ANSWER: The collection of data regarding the treatment of patients for service-connected conditions in the outpatient program is currently in the planning process. It is estimated that this information will be collected in a national database beginning in fiscal year 1993.

REDEFINITION OF SERVICE-CONNECTED VETERAN

SENATOR GARN: When is VA planning to implement changes in the rating schedules for service connected disabilities? I understand that the changes will be phased in depending on which part or system of the body is affected. Could you provide a schedule outlining when each of the systems will be completed and ready for implementation?

ANSWER: In response to the GAO report of December 1988, we are now in the process of revising each body system in the rating schedule. To date we have been guided in our review not only by the recommendations of GAO, but also by contracting with outside consultants for background and supporting information on the various body systems. The contract reports are not the only input into this rulemaking process; review and consultation with VHS&RA also occurs.

We have already published Advance Notices of Proposed Rulemaking (ANPRM'S) in the Federal Register for the following: Genitourinary System, Cardiovascular System, Endocrine System, Gynecological System, Muscular System, Orthopedic System, Respiratory System, and Systemic Diseases.

By the end of the year, we expect to have proposed rules ready for publication concerning the Genitourinary System, Cardiovascular System, Endocrine System, and Gynecological System. It is our plan to proceed in an orderly fashion so that careful consideration is given comments from the ANPRM and the proposed rule.

Once the Chief Benefits Director (CBD) approves a proposed rule, the regulatory process for this rating schedule review may be divided into three stages:

(1) Obtaining concurrences from other elements within the Department and publishing the proposed rule (2-3 months).

(2) Reviewing comments, drafting the final rule and approval by the CBD (2-3 months).

(3) Obtaining concurrences from other elements within the Department and publishing the final rule (2-3 months).

SENATOR GARN: I have a friend who, while in the service, played football and broke a collar bone. Upon his discharge he was urged to get an assessment of his injury largely because of the possibility that later in life that broken bone could begin to bother him. In fact he was given a 10% disability rating. I know that his "disability" doesn't currently impair his life-style at all. He referees high school basketball games and plays an eight handicap golf game. He's probably in a lot better shape than most of us in this room. But he also gets monthly disability checks from VA (now about $80), and if he chose to go to a VA hospital, he would be entitled to treatment as a "category A" disabled veteran. This troubles me deeply, even if we didn't have a massive Federal deficit. But with that deficit, and the likelihood that critical needs won't be funded because of competing budgetary demands from such entitlement benefits...this is an outrage.

SENATOR GARN: What is the Department doing to curb this type of abuse? (Incidentally, my friend said that he once went to a VA office to ask that his disability checks be stopped since he felt that he didn't deserve them. After recovering from their shock, the folks at the VA office told my friend that the only way to suspend his payments would be to eliminate his disability rating...
something he was reluctant to do since that old football injury could begin to trouble him later in life. So he continues to get those monthly checks.)

ANSWER: The 10% disability evaluation was given based on a finding of some type of residual disability at the time the claim was adjudicated. When an original evaluation is made, a determination is also made as to whether improvement is likely. If improvement is expected, controls are set up to ensure that an examination is performed at a future date. If improvement was not anticipated, no future control is set up. This decision is based on the rating board's best estimate of the probability for change in the condition. Setting up future examinations only for conditions expected to improve is a deliberate policy choice designed to minimize the expense to the government and inconvenience to the veteran in the many cases where no change would be shown by examination.

However, the future course of some conditions cannot always be predicted and in other cases improvement occurs unexpectedly. In these cases benefits may continue at a level in excess of that warranted by the degree of disability. No method exists for VA to identify these individual cases other than to call in for examination very large groups of veterans who would not otherwise be examined. This would not be a cost-effective procedure. Congress has addressed the issue of ratings which exceed the degree of disability shown. 38 U.S.C 110 provides that "A disability which has been continuously rated at or above an evaluation for twenty or more years for compensation purposes under laws administered by the Veterans' Administration shall not thereafter be rated at less than such evaluation, except upon a showing that such rating was based on fraud." Thus even if VA were to receive evidence of the improvement, the law would prohibit reduction of benefits after 20 years.

Almost all veterans who apply to VA for a change in the level of their disability evaluation do so because they believe their disabilities have worsened. A veteran could request a reevaluation of his or her condition with a view to determining whether a lower evaluation would be in order. If, however, the evaluation had been in effect for twenty or more years, VA could not reduce it to a lower level, as explained above. When veterans believe that they are not entitled to the compensation they are receiving, the law does provide for renouncement of right to benefits. The law makes no provision for renouncement of monetary benefits only. 38 U.S.C. 3106 provides "Any person entitled to pension, compensation, or dependency and indemnity compensation under any of the laws administered by the Veterans' Administration may renounce the right thereto. The application renouncing the right shall be in writing over the person's signature. Upon the filing of such an application, payment of such benefits and the right thereto shall be terminated, and such person shall be denied any and all rights thereto from such filing."

The law further provides "Renouncement of rights shall not preclude any person from filing a new application for pension, compensation, or dependency and indemnity compensation at a later date, but such new application shall be treated as an original application, and no payments shall be made for any period before the date such new application is filed." If a veteran chooses to renounce compensation benefits he or she is not entitled to other benefits which flow from the service-connected disability, such as medical care, until a new claim is filed and basic service connection is reestablished. In the vast majority of cases service connection is quickly reestablished based on evidence which was previously of record. There have been cases, however, in which service connection was denied upon reapplication due to evidence not previously considered or upon a different interpretation of prior evidence. Veterans are informed of this possibility when they inquire regarding renouncement.

In summary, we do not find any abuse in the situation described. Continuation of the evaluation and payment of compensation are appropriate under the law in the absence of submission of evidence of improvement or renouncement on the part of the veteran. We would also like to point out that even if the evaluation were reduced to 0% and compensation discontinued, the veteran would still be considered a "category A" veteran for hospital treatment purposes. All veterans with service connected disabilities are in this category, regardless of whether they are receiving compensation.

DRUG COST SHIFTING

SENATOR GARN: Reconciliation last year mandated that drug manufacturers provide drugs to Medicaid at the lowest possible cost. By providing pharmaceuticals at the lowest cost to Medicaid, drug manufacturers have increased the cost of drugs on the Federal Supply thereby substantially increasing the cost to the Department of Veterans Affairs and Defense. Recently two manufacturers refused to review their contracts with the Department of Veterans Affairs for insulin. Senator Pryor wrote to Secretary Derwinski stating that he "understand(s) that some drug manufacturers have been increasing their prices to the Department of Veterans Affairs, breaking long term contracts with the agency and refusing to negotiate in good faith over prices." I understand that GAO is in the process of assessing the financial impact of this situation. (a) What is VA's estimate of the potential impact of cost shifting? (b) What does VA think should be done to address this issue?

ANSWER (a): The Department's initial estimate was that the impact would be an increase of $150 million annually in pharmaceutical expenditures for VA. This estimate was established prior to the award of most Federal Supply Schedule (FSS) contracts. The calculation was based on an evaluation of the scope of products whose prices were likely to be vulnerable to price increases and the current expenditures for those products. Data is currently being collected for GAO which will examine price increases on select items. Now that FSS contracts have been awarded, VA is collecting pricing information and usage information to more closely assess the impact. We expect to complete this reassessment by June 1, 1991.

ANSWER (b): Section 4401 of the Omnibus Budget Reconciliation Act requires that pharmaceutical manufacturers pay a rebate to state Medicaid programs. In some cases, the amount of the rebate is related to the difference between the Average Manufacturer's Price (AMP) and the "best price" in the market. Pharmaceutical manufacturers increased many prices to favored buyers in the market (including VA) who previously had received some of the lowest prices. By raising "best prices", manufacturers are able to protect profit margins and reduce the total rebate paid to state Medicaid programs.

VA believes that the exemption of FSS schedule prices from the "best price" reference in the law (Section 4401 of the Omnibus Budget Reconciliation Act) could deter cost shifting. Currently only depot and single award contract prices are exempt.

AIDS SERVICE

SENATOR GARN: On page 6-54 of your budget submission you request $325,366,000 for the treatment of AIDS patients. This is a 30% increase over last years level and a 98% increase over FY 90. These costs are spiraling. What type of increase is expected next year? How do you develop these estimates? Does this fund request include funds required to treat all categories of HIV-positive patients, or are these dollars only for the treatment of those patients with full blown AIDS? Are these funds specifically earmarked for the treatment of AIDS in the individual medical centers based on their workload?

ANSWER: Our latest projection indicates an increase of 20% annually in FY 1992 and 1993. The estimated costs are developed by estimating the annual increase in the number of patients treated and multiplying that number by the estimated cost of care for HIV+, ARC and AIDS patients. The $325.4 million figure represents the estimated cost of care to treat all categories of HIV infected, ARC and AIDS patients. With the exception of funds received specifically for AIDS treatment in the 1989 supplemental and 1990 appropriation, the care of HIV+, ARC and AIDS patients has been funded from the general medical care appropriation. Funds that were specifically added for the treatment of AIDS in FYs 89 and 90 were earmarked to individual medical centers based on their high incidence of

AIDS workload.

SENATOR GARN: I understand that VA has established the AIDS technical advisory group (TAG) to better determine the cost to VA of providing treatment to HIV infected patients and to determine the resource needs required to treat AIDS and HIV infected patients. Does VA expect any changes in the treatment which will bring down the cost of treating AIDS and HIV infected patients?

ANSWER: At present, VA does not expect changes in treatment which will bring down the per person cost of treatment for HIV infected and AIDS patients in the near future. Although a trend toward increasing outpatient treatment is anticipated, the overall cost of care is not expected to diminish for several reasons: a. the treatment of HIV infected patients begins at earlier stages of infection thus increasing length of life and time under treatment and b. the cost of developing therapeutics is expected to increase overall treatment costs. Further, while acute care inpatient stays may decrease somewhat, the continuing need for both acute and long term care is anticipated.

SENATOR GARN: What is the current breakout of AIDS patients by risk factor? Could you provide a comparison of breakouts of risk factors over the last three years? Is the VA seeing an increase in the amount of IV drug users who are contracting AIDS?

ANSWER: The March 31, 1991 breakout of AIDS patients by risk factor is as follows:

Risk Factor	Cumulative Number	Percent of Population
Homosexual/ bisexual	5142	47.93
IV Drug User	2879	26.84
Both Homosexual & IV Drug User	752	7.01
Heterosexual Contact	348	3.24
Transfusion	374	3.49
Unknown/ Unreported	1233	11.49

Over the last three years, the breakout by risk factor from the end of one calendar year to the next is as follows:

Risk Factor	Dates	Cumulative Cases	Absolute Difference
Homosexual/ bisexual	12/87	1604	
	12/88	2669	1065
	12/89	3758	1089
	12/90	4860	1102
IV Drug User	12/87	882	
	12/88	1498	616
	12/89	2116	618
	12/90	2720	604

Risk Factor	Dates	Cumulative Cases	Absolute Difference
Both homosexual/ IV Drug User	12/87	246	
	12/88	400	154
	12/89	557	157
	12/90	707	150
Transfusion	12/87	111	
	12/88	192	81
	12/89	259	67
	12/90	344	85
Heterosexual experience	12/87	104	
	12/88	213	109
	12/89	255	42
	12/90	323	68

The absolute differences in the numbers of patients reporting IV drug use as risk factor suggest the VA in not seeing a significant increase in the number of IV-drug users contracting AIDS.

PROBLEMS WITH INSPECTION OF EQUIPMENT

SENATOR GARN: On page 6-21 of the budget submission, you request an increase in the Replacement equipment account of $52,530,000. This reflects an overall funding level of $155,209,000. Anecdotal evidence collected by subcommittee staff in the field indicates that your inspection staff is having problems accepting the equipment VA receives from contractors. According to these sources, inspections take much longer than expected and often require multiple visits by inspectors before the equipment is properly installed and considered acceptable. Additionally, we have been told that the inspectors have a backlog of equipment requiring inspection. Because of these problems there may be millions of dollars of new equipment sitting idle. If you are planning on procuring additional equipment how are you going to ensure that new equipment will be inspected in a timely manner? Has the Department considered new arrangements with equipment vendors to assure more expeditious inspection and utilization?

ANSWER: Equipment is turned over to the medical center for use when installation and calibration are completed. Rejections of final acceptance by the VA rarely prevent use of the equipment. Until such time as equipment is re-inspected and is accepted, service is provided by the contractor at no cost to the VA. In most cases equipment does not sit idle waiting for final acceptance. Equipment vendors have been contacted by Contracting personnel from the VA Marketing Center about rejection rates and quality programs.

AGENT ORANGE

SENATOR GARN: Legislation was recently passed permitting service connection for chloracne and two types of cancer: non-Hodgkin's lymphoma; and soft tissue sarcoma. To what extent are claims being submitted to VA in response to this legislation?

ANSWER: The regulatory framework existed for the service connection of chloracne and non-Hodgkin's lymphoma prior to the enactment of Public Law 102-4, the Agent Orange Act of 1991. VA had also published in the Federal Register a proposed rule concerning the service connection of soft-tissue sarcoma prior to Public Law 102-4. Consequently, we do not believe that there are any claims being submitted solely in response to that legislation.

SENATOR GARN: The National Academy of Sciences is conducting a legislatively mandated study to determine if there is a linkage between Agent Orange exposure and serious medical ailments including cancer. With the exception of chloracne, no definitive scientific evidence exists linking cancer, birth defects, or other disease with exposure to Agent Orange. Recently, the Air Force published the first large-scale scientific study to accurately measure the effects of the defoliant on health. The study compared Vietnam veterans exposed to Agent Orange to veterans with little exposure and indicated that their results "suggest that dioxin may affect levels of blood sugar and fat and act as an irritant to the body (but there was) no evidence of a relationship between dioxin and cancer of any kind, liver disease, heart disease, kidney disease, immune system disorders, psychology abnormalities or nervous system disease". What is the status of the National Academy of Sciences study regarding the effects of Agent Orange?

ANSWER: Negotiations with the National Academy of Sciences for the effort mandated by Public Law 102-4 are currently underway. During the negotiations, the NAS raised the issue of indemnification for any losses they may incur as a consequence of litigation arising out of the agreement. Efforts are now underway to resolve this issue.

STANDARDIZATION OF DEPENDENCY AND INDEMNITY COMPENSATION (DIC) PAYMENTS

SENATOR GARN: VA is planning a legislative initiative to standardize the Dependency and Indemnity Compensation (DIC), paid to surviving spouses of veterans who die in service or as a result of disabilities or diseases incurred in service. VA informs my office that the proposed legislation would become effective on October 1, 1991 and would: pay all new claimants at the E-6 rate; "grandfather" DIC payees currently being paid at E-7 and above (including future cost-of-living allowances); and, over a five year period, raise to the E-6 rate DIC payees currently being paid at less than the E-6 rate. VA claims that this proposal will save $15 million the first year and $400 million from 1991 to 1995. I assume that the savings will come from paying the surviving spouses of officers at a lower rate. Could you demonstrate for the record specifically how this savings will occur?

ANSWER: The initiative to standardize DIC, in 1991, would not pay all new claimants at the E-6 rate. The legislation, as proposed, would over a five-year period, eliminate the E-1 through E-5 DIC rates gradually making the E-6 level the minimum DIC rate. To illustrate, attached is a chart with the current payment levels for all pay grades and the proposed payment levels for new cases entering the rolls on October 1, 1991. All new DIC claims from the surviving spouses of veterans in the E-7 through O-10 pay grades entering the rolls after September 30, 1991 would be paid at the E-6 level. All beneficiaries on the rolls at the E-7 through O-10 pay grades prior to October 1, 1991 would continue to receive benefits at those levels and would receive annual COLAs.

The original cost estimate for this proposal indicated first year savings of $15 million, and a $400 million cost instead of savings as payment rates are gradually increased. Since then, the submission of the cost estimate has been revised. The first year cost estimate is $5.6 million and the five-year cost estimate is $301.2 million.

Chart for Standardization of DIC Payments

Current Rates PL 102-3		Proposed 1992 Rates for New Cases and E1	Proposed 1993 Rates for New Cases and E1-E2	Proposed 1994 Rates for New Cases and E1-E3	Proposed 1995 Rates for New Cases and E1-E4	Proposed 1996 Rates for New Cases and E1-E5
E-1	594	612	629	668	668	701
E-2	612	612	629	668	668	701
E-3	629	629	629	668	668	701
E-4	668	668	668	668	668	701
E-5	686	686	686	686	668	701
E-6	701	701	701	701	701	701
E-7	735	701	701	701	701	701
E-8	776	701	701	701	701	701
E-9	811	701	701	701	701	701
Sergeant Major	875	701	701	701	701	701
W-2	752	701	701	701	701	701
W-2	782	701	701	701	701	701
W-3	805	701	701	701	701	701
W-4	852	701	701	701	701	701
O-1	752	701	701	701	701	701
O-2	776	701	701	701	701	701
O-3	831	701	701	701	701	701
O-4	879	701	701	701	701	701
O-5	969	701	701	701	701	701
O-6	1,094	701	701	701	701	701
O-7	1,181	701	701	701	701	701
O-8	1,295	701	701	701	701	701
O-9	1,389	701	701	701	701	701
O-10	1,524	701	701	701	701	701

PRESCRIPTION CO-PAYMENTS

SENATOR GARN: Reconciliation required VA to collect $2 for each 30-day supply of a medication furnished on an outpatient basis for all veterans except those with a service-connected disability rated 50% or more. This provision was supposed to realize a savings of $66 million in outlays for FY 1991 and is scheduled to sunset on September 30, 1991. Has this plan been implemented yet?

ANSWER: An interim manual billing system was begun at the end of April, 1991. However, because of the volume of billable prescriptions, a manual process was determined to be too labor and resource intensive for the long term. Therefore, an automated system was developed and is in the final stages of testing with full implementation scheduled for June 1, 1991.

SENATOR GARN: Do you have the administrative capability to implement this requirement?

ANSWER: Yes, with automation we possess the administrative capability to implement the program.

SENATOR GARN: How much do you anticipate collecting in FY 1991?

ANSWER: Manual procedures were implemented at the end of April 1991. It is estimated that in the remaining four months of the fiscal year approximately $12 to $15 million will be collected.

SENATOR GARN: We have been informed that VA collects insurance money for prescriptions provided to insured patients. Will you still collect the $2 co-payment from those who are insured? If so, what response do you anticipate from the insurance companies? If not, how does this effect the savings estimate?

ANSWER: Yes, we will still collect the $2 copayment from veterans. VA has the authority to bill the insurance companies for prescription refills. Many insurance companies do not reimburse VA for these services stating that VA is not a recognized pharmacy. For those instances where pharmacy costs are covered by insurance and veterans apply for payment to their insurers for copayments, insurance companies will offset future payments to VA medical centers. The impact on collection estimates of this offset is impossible to determine at this point.

SPECIAL PAY FOR PHYSICIANS AND NURSES

SENATOR GARN: The special pay provisions for nurses went into effect the first of this month, and in addition, proposals to provide similar benefits for physicians are pending. Both are intended to improve the competitiveness of VA in recruiting and retaining medical personnel. Have you conducted any studies which have estimated the effectiveness of these pay provisions?

ANSWER: The special pay provisions that went into effect for nurses and those that will soon go into effect for physicians and dentists were both based on a review, done by the VA, to determine levels of pay that would enable the Department to recruit and retain the highly qualified workforce it needs in these specialty areas. Comparisons were made between VA pay rates and those in the federal and non-federal health care sectors that would enable the VA to be competitive while not becoming a salary leader in any given community. The

Congress considered the VA recommendations in developing the special pay legislation that ultimately passed for both the nurses and the physicians and dentists. The VA believes that each of these bills will be effective in helping it improve its recruitment and retention situation. The Department will, as required by both pieces of legislation, be completing pay studies to ensure that the new pay rates are effective in helping recruit and retain highly qualified nurses, physicians, and dentists. Copies of these studies will be provided to the appropriate committees of Congress.

PALO ALTO

SENATOR GARN: On page 14-39 of your budget justification you provide background and justification for the replacement of the clinical bed tower. You indicate that the services and functions housed in building 1 were deficient in terms of space and function when considering 2005 projected workloads. However, on the next page, 14-40, your estimates for 2005 indicate a 19% reduction in authorized beds, and 2000 fewer outpatient visits than current levels. If you are projecting a reduced workload then why not attempt to construct a replacement hospital which will provide you the capability you had prior to earthquake? I am aware that you had considered other options some of which could provide care at levels prior to the earthquake, but have rejected them. I would like you to submit a detailed explanation as to why you decided on the $252 million option when there were other less costly options.

What was OMB's initial pass back to VA on the Palo Alto project? What was the result of the appeals process?

ANSWER: Prior to the earthquake, many of the services and functions housed in Building 1 had significant space and functional deficiencies as well as code deficiencies based on the current workloads. Patient bed areas were 25% deficient; clinical services such as cardiology, dermatology, nuclear medicine, dental, and pulmonary were 15% to 50% deficient; ambulatory care and related support such as eye, ear, nose and throat clinics and pharmacy were 35% to 40% deficient based on current workloads. Deficiencies are even greater at the projected workload levels. Although the bed levels are dropping, the number of patient episodes are increasing due to higher turnover rates. That means that the workloads of individual clinical and support services will increase over time due to the higher patient load as well as the advancement of high technology diagnostic and treatment modalities in many areas. For example, the hospital was in the process of renovating space for a magnetic resonance imaging machine at the time of the earthquake. That planned high tech modality is not currently available because the space had to be used for functions moving from the damaged Building 1. It is planned in the new building.

Several options were considered that would repair or rebuild only the damaged portions of Building 1. These were not selected because they would not have brought the building up to current codes and standards and would have left the facility in its pre-earthquake, severely deficient condition. Space deficiencies, poor functional arrangements, and code deficiencies would not have been fully corrected, and the largest of these options would have taken 5 to 6 years to finish. In addition, future projects would have been required to correct the remaining deficiencies.

Several new construction and new construction/renovation options were considered that would address Building 1 either at one time or over a phased period. Some were rejected based on a higher cost than the selected option. Other reasons for not selecting these options included: (1) operational inefficiencies such as not all floors aligning between new construction and existing buildings requiring more use of elevators and staff to move patients and materials; (2) continued increased operating costs to renovate and maintain remaining old portions of Building 1 (3) additional operating expenses that result from the tendency to establish small, redundant activities in a spread out building configuration, such as blood and urine drawing labs and satellite radiology units to support ambulatory care services remaining in Building 1; and (4) an extended construction duration of 6 years, 3 years longer than the selected option.

The selection of the $252 million option was made after careful analysis of all factors, including quality factors such as the operational efficiency of the building complex and meeting current space and functional criteria and current codes and standards; cost factors such as recurring operational and maintenance costs as well as initial capital costs; how soon the facility can be completed; and the impact of multiple disruptions caused by the construction activities on a hospital already operating in makeshift facilities.

The project was in the OMB submission for $252 million, which included $20 million provided by Emergency funding. The OMB passback denied VA's request for funding and directed that the project be reduced in cost to $100 million or less. The subsequent appeal and Presidential budget has $40 million for the steel frame of the building.

MISSION COMMISSION

SENATOR GARN: In last year's testimony when VA responded to Senator Grassley's questions regarding the Commission on the Future of Veterans Health Care, you stated that the Commission was established to tell the VA how it should be structured in the future. However, at that time you told Senator Grassley that you have made a flat commitment that no medical center in the VA would be closed and that you have no intention of downsizing the VA. Does this mean consolidation of services in order to eliminate redundancy and create efficiency is out of the question?

ANSWER: A key component of the Veterans Health Services and Research Administration's (VHS&RA) planning process is the development of the National Health Care Plan. This plan will make clear VHS&RA's future directions and priorities with the objective of providing a full continuum of health care services and ensuring continuity of veteran care within the VHS&RA system of services. Some of the analyses that will provide input to the plan will be made with the assumption that services will be organized to improve veteran access, and to eliminate service gaps by shifting resources from areas of service overlaps. Eliminating redundancy and creating efficiency are certainly primary goals of VHS&RA.

MEDICAL COST RECOVERY PROGRAM (MCRP)

SENATOR GARN: I understand that VA has drafted a statement of work which will allow vendors to become certified to collect insurance payments on behalf of insured patients. VA has informed committee staff that this is because some medical centers have not performed this function well and under this new program, they have the option of contracting for vendor assistance. To what extent did VA consult with private companies specializing in hospital billings and collections as they put together their program?

ANSWER: The statement of work will not allow vendors to collect insurance payments on behalf of insured patients. The statement of work provides services to allow VA medical centers to engage vendors to perform a variety of tasks related to medical care cost recovery (MCCR) functions. These functions include collection of insurance payments on behalf of VA medical centers. In putting together the MCCR program, insurers, medical centers, and private vendors offered advice and insight in all aspects of identifying, billing, and collections.

SENATOR GARN: In response to a direct question by the Senate Committee on Veterans Affairs, the VA indicated that virtually all of the tasks involved in the billing effort could be performed by the private sector. What percentage of the work involved in the MCRP does the VA intend to contract out?

ANSWER: The VA has not established a target percentage of the overall work related to medical care cost recovery (MCCR) that it intends to contract out.

SENATOR GARN: What cost savings could the VA have realized if they had turned to the private sector to perform this program rather than attempting to do it in house?

ANSWER: As a result of preliminary unsolicited informal proposals received from vendors, it is uncertain whether any cost savings across the system could be realized. The current FY 91 six-month gross collection under medical care cost recovery of $106 million by VA medical centers has been accomplished at a cost of $10.2 million. Roughly this amounts to a cost to recovery ratio of 10%. While capital investments in equipment and additional staffing dollars are expected to be added, collections likewise are expected to increase. The percentage of investment to collection is expected to remain below 20%. Private vendor estimates range between 25% and 35%. Had the VA contracted out all collections, it would have cost the VA between $26.5 million and $37.1 million plus the cost of staff performing patient intake interviewing which is currently included in the VA cost of $10.2 million for collection.

SENATOR GARN: Do you think it may be more advantageous and cost effective to contract for the entire MCRP?

ANSWER: VA believes it would not be more advantageous or cost effective to contract for the entire medical care cost recovery (MCCR) program; however, there is a legitimate and appropriate use of vendor support. This support could be provided to VA medical centers requiring specialized services and could be useful for facilities having some difficulty in establishing a medical care cost recovery (MCCR) program to recover payments.

SENATOR GARN: How many FTE does VA devote to recovering from third party payers, what is the cost associated with the recoveries (including personnel costs), and what is the percentage of cost to recoveries?

ANSWER: A survey in June 1990 indicated that the VA employed 635 FTEE to recover third-party debt. The OBRA of 1990 expanded the third- party collection activity and copayment program. The VA has been authorized 1,300 FTEE in FY 1991 to support the full medical care cost recovery (MCCR) process (3rd party collections and copayment collections). The same staff perform both functions. As of March 31, 1991, the VA has 703 FTEE assigned to all MCCR functions. Recoveries for MCCR as of March 31, 1991, have exceeded $106.5 million. Our obligations, including personnel services, through March 31, 1991, are $10.2 million. Our cost to recovery ratio is approximately 10%.

SENATOR GARN: To what extent have you evaluated alternative contracting arrangements with private entities to assure that the most effective recovery rate is achieved?

ANSWER: The structure of the Statement of Work and Request for Proposal includes a variety of contracting arrangements to assure the most effective recovery rate possible. Options include contract clusters, unit costs, and itemized service modules. Contract sites will be compared against comparable VA medical centers without contracts to assess the costs of contracting versus in-house activities.

SENATOR GARN: What resources has VA dedicated to procure new hardware and create custom software to perform this function?

ANSWER: The VA has dedicated 27 FTEE at its 7 Information System Centers tasked with developing customized software to facilitate the medical care cost recovery (MCCR) process. To date, the VA has developed a backbilling program employed by VA medical centers to generate insurance bills for Calendar Year 1989 and 1990 amounting to $286.1 million; a modified routing slip designed to aid professional staff in distinguishing the service-connected disabilities of patients from the nonservice-connected conditions; and an efficient pharmacy copay billing package which will streamline the pharmacy billing and collection process.

SENATOR GARN: Was it necessary to buy new hardware and create custom software when these items were already available in the private sector?

ANSWER: New hardware requirements are being identified which will support new staff and the pharmacy function. This hardware is supported by the current system. In addition, new technology options are under consideration for outpatient billing. The private sector is the source of this new technology.

SENATOR GARN: I understand that the VA has considered the issue of outpatient billing and does not consider it economically feasible to collect from insurance companies for outpatient care. If this remains your Department's position, please explain the rationale and analysis for this assessment.

ANSWER: The VA does not consider outpatient billing to be economically infeasible. Quite the opposite is true. The VA is currently examining its outpatient rate structures and options available for fully automating outpatient billing.

MEDICAL RESEARCH BUDGET

SENATOR GARN: In the Final Report of the Department of Veterans Affairs Advisory Committee for Health Research Policy completed in January of this year, the Committee recommended several steps to improve the research environment of the Department. They suggested a substantial increase in the medical research budget from the $176 million included in your 1992 budget request to $235 million. The Committee also wanted to see a total health research program of $280 million rather than the $217 million contained in your budget request. Additionally, the Committee recommended some no-cost initiatives calling for periodic review of the allocation of funds to assess the scientific significance and relevance to the VA mission and the creation of a Health Science Advisory Council which would oversee research to identify and prioritize areas of investigation. When do you plan on implementing these no-cost initiatives?

ANSWER: VHS&RA has forwarded its comments on the final report of the Advisory Committee on Health Research Policy to the Secretary. These comments, which include endorsement of the proposal to create a Health Service Advisory Council, and the Committee's report are currently under review by the Secretary.

SENATOR GARN: Why is there such a variance between your budget request and the recommendation of the Committee?

ANSWER: In an environment of limited overall resources, no increase over the prior year's research funding level was possible. The Committee's recommendation was not released officially until after FY 1992 budget decisions were made by VA and OMB.

CEMETERY SYSTEM

SENATOR GARN: In January, subcommittee staff visited two VA cemeteries and the National Cemetery Area Office in Atlanta to discuss general conditions at the cemeteries in your system. Three problems stand out: deteriorating equipment which is expensive to maintain, sinking graves, and overall maintenance of cemetery grounds. Is VA considering a replacement plan for equipment which has deteriorated and is expensive to maintain?

ANSWER: The NCS has a system which identifies equipment due for replacement, and those needs have been included in budget requests. Additionally, the NCS has proposed a plan designed to eliminate the current $8.4 million backlog in replacement equipment over a 4-year period. However, in the current fiscal environment of budget deficits and resultant government-wide fiscal restraints, sufficient funding to address the need for replacement equipment has not been available. NCS will continue to repair aged equipment, lease critical equipment if the old equipment cannot be repaired, and seek additional funding for replacement equipment needs.

SENATOR GARN: Have you conducted a study to determine the amount of maintenance funds which could be saved by replacing equipment?

ANSWER: No formal study has been conducted, but the level of expenditures can be reasonably extracted from existing accounting and workload reports. In 1990, the national cemeteries spent $195 thousand on contracted equipment repair, $483 thousand on spare parts for repairs, and $73 thousand to lease equipment. Additionally, a significant number of personnel hours were expended on equipment maintenance and repair resulting in the diversion of these individuals from other cemeterial activities, such as grounds and graves maintenance.

SENATOR GARN: VA cemetery staff indicated that it takes a great deal of effort to repair sunken graves, especially in older cemeteries. Many of our older cemeteries are closed and VA contracts for the maintenance of the grounds. What oversight is being conducted to ensure that the cemeteries maintained under contract are being properly maintained and that the sunken graves are repaired?

ANSWER: Our older cemeteries are least affected by sunken graves due to aging and natural compaction of the soils. Many of our older cemeteries are small, most are closed, and many experience few, if any, burials. Those under contract are satellite cemeteries of a larger more active facility under direct supervision of a cemetery director. Oversight is also provided by the National Cemetery Area Office having jurisdiction over the assigned area. The cemetery director responsible for the site makes frequent visits (weekly), and the Area Office Director and staff make periodic evaluations of the standards of maintenance provided at a contract cemetery. Repair of sunken graves is always a task of performance within a maintenance contract.

SENATOR GARN: To what extent has the California drought contributed to the maintenance problems experienced by VA cemeteries in that state?

ANSWER: In Southern California, where three of five California cemeteries are located, the five-year drought had its greatest effect. The lack of water resulted in large areas of turf being overtaken by weeds. In some areas of our Southern California cemeteries, complete renovation will be required to restore the turf. Where drought conditions have caused local and state governments to impose water restrictions it may be difficult to restore the turf because of the heavy concentration of water required to germinate grass. Drought conditions have affected cemetery employees' ability to timely replace turf after initial interment. These conditions are very visible to the visiting next of kin. In cemeteries where heavy clay is the dominant soil, sun baked conditions make it impossible to prepare the grounds for turf without a major renovation project. Drought conditions in California will require major expenditures to restore cemetery grounds to the high standards of maintenance associated with the National Cemetery System.

PHILADELPHIA INSURANCE CENTER

SENATOR GARN: In a briefing last winter to subcommittee staff, information was presented indicating that the Insurance Center in Philadelphia was having difficulty programming and maintaining their antiquated computer equipment. Staff was also informed that the ADP system at the center experiences excessive production failures. What is being done to correct these problems?

ANSWER: Equipment problems have been corrected by the installation of more modern equipment obtained from another government agency for which it was excess. An Hitachi Data System Model 9060 was installed on December 17, 1990, and will serve as an interim processor until the installation of the IBM 3081 released from the Senate is completed. As of this date all Insurance batch programs have migrated to the Hitachi except for the general ledger programs which are scheduled to migrate in July 1991. Hardware reliability of the Hitachi has been exceptionally good.

Operational reliability and maintainability of the programs have been improved to some degree by converting them from obsolete Autocoder language to standard COBOL. However, further changes are needed: to overcome poor program structure which conversion to COBOL cannot alone correct; to overcome restrictions imposed by the limited master record structure; and to eliminate the extra work required by the multiple versions of programs for different hardware platforms. The current staffing level is limited in its ability to work on these changes because of the need to reduce the heavy backlog of functional changes which were deferred during the conversion to COBOL.

We can effect only marginal improvement to program structure and reliability in the near term. The changes required are extensive and cannot be effectively accomplished without a complete system redesign. Current operational and maintenance demands keep the system development staff fully occupied. Insurance redesign will be incorporated into Stage III of the Veterans Benefits Administration Modernization program, estimated for the 1995/1996 time frame.

SENATOR GARN: Additionally, subcommittee staff was informed of a material weakness at the Philadelphia Insurance Center's Automated Data Processing Center. Reportedly, there is no directory of who can access files. As a result, changes can be made to files and there is no way to identify who made the last change. This includes the processing of loans and claims; areas where fraud is most likely to occur. We have been told that this situation cannot be corrected with the current system and has resulted in employee fraud in the past.

What action is VA planning to address this material weakness?

ANSWER: Control of access to files has been corrected. Conversion of our programs to COBOL permitted them to operate within an improved security environment which employs the software package TOP SECRET. This meets generally accepted standards for access control and protection.

Program changes have been implemented to effect additional safeguards to prevent and/or detect issuance of fraudulent requests for disbursements. A second level concurrence transaction (already required for loans and cash surrender) is now required before dividend disbursement actions will be accepted by the system. These changes were installed in October 1990 for transaction entry and in March 1991 for batch update programs. In April 1991 further changes were installed to expand the data permanently retained in microfiche transaction files to facilitate research if unusual situations are detected. We also will obtain from the staff of the VA Inspector General programs which they have developed to analyze Insurance data to identify suspicious conditions. We will run these periodically to provide additional means to identify potential fraud.

SENATOR GARN: Perhaps a private concern could manage the center more efficiently. Has VA ever considered contracting out the management of insurance operations?

ANSWER: The Veterans Benefits Administration's Insurance Service is responsible for managing and administering six insurance programs, serving 3.3 million policyholders. The Insurance Service also supervises (i.e. VA is responsible for the program management of) the Servicemen's Group Life Insurance (SGLI) and Veterans Group Life Insurance programs, which are administered under contract with a private insurance firm and serve 3.8 million insureds. VA's life insurance programs presently provide approximately $375 billion in coverage.

The question of whether it would be advantageous for the government life insurance programs to be administered in whole or in part by the commercial insurance industry has been reviewed in the past. Two separate studies found that the cost of operating the VA administered programs directly is less than comparable operations in the private sector.

In 1984, the Office of the Inspector General (OIG) conducted a review of VA Insurance program costs. As a part of this review the OIG conducted a cost comparison of VA expenses and those of similar commercial insurance programs and the economy and efficiency of selected program costs and services supplied. Their analysis supported the current in-house delivery method for VA administered programs.

The OIG's review compared industry unit costs per policy with similar costs associated with VA administered insurance programs. They found that VA cost per policy for Fiscal Year 1983 was $5.98. In an effort to make industry-wide comparisons they contacted the American Council of Life Insurance (ACLI) and found that the estimated cost per policy during Calendar Year 1982 for individual commercial policies similar to the ones administered by VA was $50.49 per policy. Since the commercial cost per policy included acquisition costs (such as agent commissions), the IG also looked at the average cost of providing coverage under a commercial group policy. Although the administration of a group policy is relatively simple compared to administering an individual policy, VA's cost per policy for its individual policies was still cheaper than the average cost of insuring an individual under a group policy which was $6.53. A group policy is easier to administer since it usually provides only term coverage, has no guaranteed cash values that can be borrowed, has limited disability provisions and generally does not pay dividends.

These estimates were based on industry-wide data for all insurance companies which are a part of annual statements mandated and filed with each state insurance commission and compiled by the ACLI. Only a few of the largest insurance firms would compare in size to VA's insurance programs. For this reason the OIG visited one of the 10 largest commercial life insurance companies to validate the ACLI's estimates. The company that they interviewed estimated that the cost of administering a group policy was $10 per insured; $7.00 per policy for administration (direct) expenses and $3.00 for shared (support) expenses. The administration expenses include: maintaining a group sales force, product marketing force and personnel relative to premium collections, benefit disbursements, policy maintenance and certain support services. Shared expenses are those associated with the continuing operation of the company, i.e. licenses and fees, insurance, taxes and executive direction. OIG concluded that the current in-house delivery method of the VA administered programs was the most cost efficient.

The commercial company representatives pointed out that the two cost components that they identified did not include any additional cost factors which may be related to "significant and restrictive caveats" which they believed were inherent in the VA insurance programs. They further stated that the feasibility of private industry maintaining all VA insurance programs must include considerations of the desirability of a commercial operation inheriting policies which are decreasing in number and premium receipts with no new issues except high risk Service Disabled Veterans Insurance (SDVI) for veterans with service connected disabilities; increasing liability due to increasing age of the insureds; and legislated provisions such as providing policy loans at very low interest rates. Because of the unique nature of the programs, including legislated provisions peculiar to government life insurance programs and the declining number of policies in force, they did not believe that administering these programs would be attractive to the commercial industry. They also indicated that it would be very difficult for any firm to accommodate the restrictive caveats particular to the VA program.

At the time of the OIG's review, the Veterans Mortgage Life Insurance (VMLI) program was administered by the Bankers Life Insurance Company of Lincoln, Nebraska and supervised by VA. VMLI is a group policy which provides insurance protection to severely disabled veterans who have received grants for specially adapted housing from VA. Not only did OIG's analysis support the in-house delivery method for VA administered programs, they also found that it would be more cost efficient to move the commercially administered VMLI program in-house. As a result, the OIG recommended that VA seek a legislative change to bring the total VMLI program operation within the VA. Congress subsequently passed PL 100-322, which resulted in VA terminating the contract with Bankers Life and assuming full administration of the VMLI program. The VMLI program has been operating successfully in-house since September 1, 1988.

A study was also conducted to determine whether VA's collection functions could be performed cheaper by a commercial company. In October 1982, the Office of Management and Budget released OMB Bulletin 83-6 which required each major federal agency to institute an aggressive program for strengthening its cash management practices. This initiative, part of an overall management improvement process referred to as "Reform 88", called for strengthening the collection and disbursement practices of federal agencies. As a result, VA undertook a study of the Insurance remittance processing system to determine whether to continue the in-house processing of insurance collections or to replace it with a commercial lock box contract. The Veterans Benefits Administration (formerly the Department of Veterans Benefits) conducted a cost benefit analysis of VA's costs versus the lowest commercial bidder for a remittance processing operation. Based on this VA cost analysis, it was determined that the in-house processing was approximately $370,000 (on an annual basis) less costly than the commercial alternatives.

VA was contracting out its loan guaranty lock box operation to a commercial company at that time. However, VA with the Treasury Department's concurrence moved this collection activity back in-house in 1988 because of the savings and service improvements it could achieve by allowing the insurance operation to collect the payments in its in-house lock box operation. As a result of this move, which was recommended by the Controller, the projected annual savings to the government were $136,000 annually.

AUTOMATED DATA PROCESSING (ADP)

SENATOR GARN: How is your ADP plan progressing? Are you meeting your objectives as outlined on page 5-7 of your 1992 budget submission?

ANSWER: The establishment of the Chief Medical Director's Information Resources Advisory Council (IRAC) occurred in August 1990 when the CMD approved the initial membership of the IRAC. The IRAC provides an over-arching review and prioritization function for information resources in VHS&RA. The IRAC's top priorities are an integrated clinical record and integrated bed management information. The IRAC has recommended IRM initiatives for the FY 1993 budget which support VHS&RA's strategic planning goals and objectives. No new IRM initiatives were authorized for VHS&RA in either the FY 1991 or FY 1992 budget approval process.

SENATOR GARN: On page 5-8 the 1992 request for VHS&RA commercial services is $20.25 million higher than FY 1990. This represents a 51.7% increase over the FY 1990 level. Could you be more specific and provide for the record, which commercial services you will employ for $59.4 million?

ANSWER: Seventy-five percent of VHS&RA's commercial service expenses for FY 92 fall into two categories: (1) Hardware maintenance on our existing equipment base which has increased due to DHCP, PAID and ISMS procurements in FY's 89, 90 and 91 (a $10.0 million increase from $14.5 million in FY 90 to $24.5 million in FY 92) and (2) Contractual obligations for the permanent Integrated Hospital Systems (IHS) test sites (Congress mandated an increase from three to five sites, which necessitates a $6.6 million increase from $13.6 million in FY 90 to $20.2 million in FY 92). The remaining twenty-five percent (a $4.6 million increase from $10.1 million in FY 90 to $14.7 million in FY 92) is for increases in data communication services such as timesharing i.e. NIH, Medline, Dialog, dedicated data lines, information resource studies i.e. feasibility studies or requirement analysis, commercial training, minor site preparation cost, etc.

SENATOR GARN: On page 5-9 of your budget estimate you propose an increase of approximately $33.7 million added to the original budget estimate for DHCP. The bulk of which ($20.78 million) is to support 503 FTE in personal services. Your justification states what the additional funds are for, but it does not state why you need the additional funds. What would be the effect of not adding the $33.7 million?

ANSWER: No additional funds are being requested for DHCP in either FY 1991 or FY 1992. Additional DHCP funding will be realized through internal redirection of Medical Care funds. The $20.78 million in personal services to support 503 FTEE represents an increase in the number of VHS&RA personnel using computer hardware and software to do their jobs. This is due to the increasing use of and dependence on IRM by clinical and administrative services throughout the hospitals. This estimate is based on reassessment of personnel costs within the hospitals and/or a change in the way in which they perform their duties; and is not an increase in the budget requested by VHS&RA. The estimated personal service obligations for FY 1992 reflect the most recent accounting of actual VAMC IRM staffing. The VAMC's have increased the number of FTEE whom they say are performing IRM duties by 306 FTEE and $13.5 million. An additional 197 FTEE and $7.3 million were also added to the original budget estimate to reflect the most current estimate of fractional time spent by application coordinators located throughout the medical centers in support of DHCP. Without these resources, VAMC's would not be able to operate the DHCP system effectively and reap the full benefits of the DHCP applications.

CONTRACTING FOR PHYSICIANS, NURSES AND TECHNICAL SPECIALISTS

SENATOR GARN: Recently this subcommittee requested GAO to report on the extent in which VA may be obtaining the services of temporary contract physicians, nurses, technical specialists, and allied health professionals in lieu of permanent civil service employees. We also asked GAO to compare what a "temporary" contract physician was paid relative to a staff physician. GAO informed us that they could not provide this information because VA did not collect such data in Central Office and many of the contracts do not contain FTE data. Additionally, execution of the contracts is not monitored centrally. Does VA plan to monitor these contracts in the future?

ANSWER: VA medical centers report the number and cost of VA contract physician services by specialty each calendar year. As a result, the Department knows how many FTE contracts were let, how many FTE they represent, and what the cost of these FTE is. This information is then compiled and included in the Department's annual report on physicians and dentists pay which is sent to the Veterans Affairs Committees early each May. In other cases, medical centers use service contracts when the nature of the work to be performed does not require the service of a full or part-time physician and may include non-personnel costs. These contracts are not tracked centrally, and, because of the nature of the contracts, it would be difficult to compare their costs to actual FTE costs. We would be pleased to provide data from our Annual Report on Physicians and Dentists to the GAO.

NORTH CHICAGO VA HOSPITAL - VA/DoD SHARING

SENATOR GARN: In your Office of Inspector General's Special Review of the North Chicago Medical Center which described very serious quality of care issues which must be addressed, the IG staff reached the conclusion that the North Chicago VA hospital/DoD sharing agreements, "are unique in that the VA essentially serves as an employment agency for the Navy with no identifiable benefit to the VA with the exception of financial gain which is not permissible with the provisions to Title 38 U.S.C. { 5011 and the August 10, 1983 Memorandum of Understanding between the Navy and VA." What is VA doing to address this issue? Are you considering termination of the agreement?

ANSWER: VA is providing FTEE to support the operation of Great Lakes Naval Hospital. Besides helping to maintain Great Lakes Naval Hospital, these agreements save taxpayers substantial sums of money (the Navy has estimated these savings to be $1.6 million a year.) North Chicago VAMC has revised its reimbursement rates to accurately reflect the actual cost of staff it is providing to the Great Lakes Naval Hospital. An improved billing and payment process is also being implemented. A joint North Chicago VAMC/Great Lakes Naval Hospital steering group is meeting on a regular basis to resolve any management issues which may arise.

These agreements result in additional patient referrals to VA from Great Lakes Naval Hospital. The agreements also encourage expanded relationships into many other areas such as education and training, medical administration, and mutual use of specialized equipment.

Great Lakes Naval Hospital has indicated their strong desire to maintain the sharing agreements under question. VA does not plan to terminate these agreements.

QUESTIONS SUBMITTED BY SENATOR NICKLES

SENATOR NICKLES: Secretary Derwinski, I have heard from a number of Oklahoma lenders who are concerned about the VA's no-bid policy when VA home mortgages are defaulted on. They believe that the VA's long practice of holding lenders harmless, even above the VA's contractually guaranteed amount, led them to rely on the VA guaranteeing the full amount of the mortgage. Could you comment on whether the VA's no-bid policy has created unfair surprise to lenders who made mortgages while assuming that the VA would continue its practice of guaranteeing the full amount of the loans?

ANSWER: The Loan Guaranty Program has always involved risk sharing between VA and mortgage holders. VA has never guaranteed the full amount of the loan. Loan holders may have come to rely upon the guaranty as the equivalent of a full guaranty because of the low incidence of no-bids prior to the 1980's. However, during the 1980's no-bids became more common because of declining property values in some parts of the country, primarily in the oil and mineral producing states. Public Law 98-369, enacted on July 18, 1984 codified a formula to determine under what circumstances VA would either pay its guaranty or acquire a property after loan termination and pay a claim. If lenders were initially surprised by no-bids, we are confident that lenders are now making adjustments for these risks when they originate, sell, or buy servicing rights to portfolios containing VA-guaranteed loans.

We, too, are concerned that no-bid cases represent the potential for increased losses to mortgage holders and are pleased to report that the percentage of no-bid cases has steadily declined from a high of 25.7 percent of all loan terminations in the second quarter of FY 1988 to 8.2 percent in the first quarter of FY 1991.

SENATOR NICKLES: Secretary Derwinski, does the no-bid policy apply to home mortgages originated both before and after the no-bid policy was implemented, and if it applies to both do you believe that any special consideration should be made for mortgages originated before the no-bid policy was established?

ANSWER: When VA guarantees a loan it agrees to pay the holder a percentage of the loan balance subject to a maximum dollar limitation, currently up to $46,000. This has remained consistent throughout the life of the Program. VA has always honored its guaranty liability. However, when a loan is about to be terminated, VA calculates whether it is more economical to acquire a property after foreclosure, sell it and take a smaller loss rather than pay the maximum guaranty amount and leave the property with the holder. In 1984 Public Law 98-369 changed this calculation by factoring in VA's costs of acquiring, managing, and selling the property. This change resulted in more no-bids but the loan holder received its guaranty payment as agreed to when the loan was guaranteed. Since VA's promise to pay the guaranty amount did not change, we do not believe any special consideration is warranted.

SENATOR NICKLES: Secretary Derwinski, I understand that in carrying out its no-bid policy that a substantial number of errors were made in performing the calculations in determining whether or not to make a bid on a defaulted VA home mortgage, and that these errors may have cost lenders millions of dollars in losses. Could you tell me what the VA is doing in response to these errors and what the status of any remedial action may be?

ANSWER: VA is required by law to establish net value by reducing the fair market value of the property securing the loan by the estimated expenses if VA acquires and disposes of the property. At the end of 1990 VA discovered a technical inaccuracy in the methods previously used to calculate net values. A project is presently underway to compensate lenders for losses they may have suffered as a result of the inaccuracy. Debts established against veterans because of the error will also be reduced.

During the period affected there were over 40,000 no-bid cases. In most of these cases the net value miscalculation made no difference on the no-bid decision. VA is reviewing slightly over 10,000 cases to ensure that all cases which may have been affected are examined. (In Oklahoma during this period there were 3,405 no-bids, due primarily to the depressed real estate market and resulting low property values. The review will examine only 624 possibly affected cases. It is expected that perhaps only 25-50% of those may have been impacted by the net value miscalculation to the extent that they should not have been no-bids.)

QUESTIONS SUBMITTED BY SENATOR BOND

SENATOR BOND: Mr. Secretary, last year you were kind enough to accompany me to the dedication ceremony for the Cape Girardeau veterans state nursing home. You and I both recognize the importance of this valuable program which provides nursing home care facilities in the states to take care of the aging veteran. Could you please tell me what other programs VA has in place to address the needs of the aging veteran population and whether VA has the resources necessary to develop programs to focus on the specific needs of these veterans?

ANSWER: The VA has the following programs to care for the aging veteran:

VA nursing homes (126 NHCUs)
Contract community nursing homes (163 VA sites)
VA Domiciliaries (34 VA sites; includes Homeless Veterans Program)
Hospital-based home care (74 VA sites)
Adult day health care (15 VA sites; 22 contracted sites)
Respite care (118 VA sites)
Hospice/Palliative care (15 VA sites)
Community residential care (127 VA sites)
Geriatric research, education and clinical centers (GRECC; 12 VA sites)
Geriatric evaluation and management (GEM) programs (93 sites)
Dementia and Alzheimer Disease programs (55 VA sites)
State Home programs (64 nursing homes; 43 domiciliaries)

Resources have continued to keep pace with the need to expand or increase these programs. For example, in FY 1991, three additional GRECCs will be started and the GEM program will be expanded to another 35 sites and adult day health care will be expanded to 4 additional sites.

SENATOR BOND: I am told that the Department's replacement equipment backlog is currently in excess of $750 million. To what extent is reducing this backlog a priority within the Department?

ANSWER: A systematic revalidation of the equipment backlog has been completed and new integrated supply management procedures, including the Replacement Equipment Matrix report have been instituted. Using the validated end of year backlog, the budget request is based upon a ten percent annual reduction. The Department will continue to vigorously pursue further reductions in the replacement equipment backlog.

SENATOR BOND: What effect is the aging of this equipment having on the VA's ability to provide necessary health care services to our veterans and, further, what could happen in the future if action is not taken to replace this equipment?

ANSWER: Although no serious compromise has occurred in the ability to deliver quality health care to our veterans, failure to replace diagnostic and other critical equipment when it has met or exceeded normal life expectancies is a potential threat to this ability.

SENATOR BOND: Could part of the replacement equipment backlog be offset through the expansion of sharing agreements? If so, to what extent?

ANSWER: An expansion of sharing agreements would have no significant effect on the replacement equipment backlog. Sharing agreements are generally pursued for high tech, high cost, state-of-the-art equipment which is considered additional equipment. Replacement equipment is generally comprised of the laboratory, radiological and other equipment necessary to maintain the daily operation of the medical center.

SENATOR BOND: It is my understanding that there are deficiencies in the criteria used to determine resources needed to fund the highly affiliated, tertiary care facilities located in urban areas. Approximately 26 VA medical centers fall into this category, including the VA Medical Center located in St. Louis, Missouri. I am very concerned about the effect that this has on funding for the St. Louis Medical Center and their ability to provide care for Missouri veterans. Would you please elaborate on the deficiencies in the current RAM methodology and the effect this has had on the St. Louis facility and others like it?

SENATOR BOND: Please explain how those deficiencies will be corrected and when. Will adjustments be made to the FY91 and '92 operating budgets for those facilities until the new funding methodology is in place? What does the Department intend to do to make up for the period of time when these VA medical centers were underfunded.

ANSWER: The VA's Resource Allocation Methodology (RAM) is no longer used for the allocation of resources to VA medical facilities. A newly developed Resource Planning and Management (RPM) process has been designed as a totally new approach to the distribution of resources among VHS&RA facilities, building upon our best processes and eliminating many of the difficulties encountered previously in the planning and budgeting process. This integrated approach to planning, budgeting and resource management was designed to improve the use of available resources within VHS&RA, provide useful management tools to VA managers, and provide a prospective allocation system. The RPM will serve as a more appropriate vehicle for consideration of issues identified at the St. Louis VA Medical Center and similar facilities. The RPM will allow analysis of need on a regional basis, thereby addressing concerns about lack of services provided.

SENATOR BOND: What else does the Department intend to do to help St. Louis VA Medical Center and the other centers who have fallen victim to the Department's current method of resource allocation?

ANSWER: VHS&RA's Resource Allocation Methodology (RAM), which started in FY 1985, was suspended for use in FY 1991. VHS&RA has initiated a new Resource Planning and Management (RPM) process which will be introduced as a pilot during the FY 1992 budget cycle, used for allocation in FY 1993 and considered in the budget formulation process in FY 1994. RPM is more than a replacement for the previous allocation methodology. RPM is a comprehensive management system, which integrates strategic and operational planning (including construction), budgeting and operational management of the VA health care system.

Before RPM is used as a resource allocation system for VA Medical Centers, VHS&RA will conduct a simulation to field test the process to assess the impact of the new system prior to implementation. The RPM simulation should protect against unintended negative impacts upon medical care programs and quality of medical care to veterans. As part of the RPM development process, there will be a close monitoring of major program performance and evaluation of the achievement of VHS&RA's RPM plans and objectives.

The new RPM process will include a management interactive process to evaluate high-cost outliers that will consider facility-level adjustments. This process will involve the review of forecasted cost and workload over several years, and changes will be considered in a prospective view rather than a retrospective adjustment of the previous system.

Under the RPM the medical center management will have a direct opportunity to review and discuss modifications in the forecasted workloads, costs, and the future mission of the facility. This new RPM process will assist St. Louis and other medical centers by assuring equitable budget allocations through the identification of gaps, and overlaps, and imbalances in programs and services on a national level.

MAJOR CONSTRUCTION FUNDING

SENATOR BOND: It is my understanding that the Department asked OMB for $700 million in major construction funding for FY92, but received only $450 million. In light of the enormous difference in those figures, what impact will the proposed funding level have for FY92 and for succeeding fiscal years?

ANSWER: The Department believes that within the context of the limited resources available, the funding levels for major construction is adequate. Although the request to OMB was larger, most of the reduction was in the adjustment for Palo Alto. We were able to fund the structural steel at Palo Alto in FY92 and not delay the project.

MINOR CONSTRUCTION FUNDING

SENATOR BOND: I am concerned that the same problem may exist with the minor construction budget. Would you please provide a summary of the construction projects that were scheduled to be funded in FY 1992 that will slip to FY 93 or later due to the insufficient funding in the minor construction budget? In general, what will the impact of the slippage be at the facility level?

ANSWER: The minor program has been significantly increased in the President's Budget for FY 1992, and we should not experience slippage from FY 1992 to FY 1993. The FY 1992 minor projects have not yet been selected.

QUESTIONS SUBMITTED BY SENATOR BYRD

OUT-OF-STATE TREATMENT OF CLARKSBURG, W.V. VA MEDICAL CENTER PATIENTS

SENATOR BYRD: Last year, the Committee, in the Senate Report accompanying the FY 1991 VA, HUD-Independent Agencies Appropriation bill, expressed its concern about the overall state of veterans health care and particularly about veterans who are transferred from the Clarksburg VA Medical Center to out-of-state VA medical facilities. In an effort to address this problem, the Committee encouraged the Department to conduct a demonstration project between the Clarksburg VA Medical Center and Ruby Memorial Hospital to reduce the practice of transferring patients far from their own localities, thereby causing discontinuity of care, inconveniences for the patients and their familiies, and excesssive delays in their receipt of medical care. In 1988 alone, at least 2,039 West Virginia veterans were sent to Pittsburgh outpatient clinics, while another 308 West Virginia veterans were hospitalized at out-of-State VA medical centers for services not available at the Clarksburg VA Medical Center and Ruby Memorial Hospital, a state-of-the-art, tertiary care hospital at West Virginia University (WVU). The West Virginia University School of Medicine, which is affiliated with Ruby Memorial Hospital, has a dean's committee relationship with the Clarksburg VA Medical Center, and this demonstration project would build upon that existing relationship.

In my follow-up letter to Secretary Derwinski on November 30, 1990, I requested a status report on the out-of-state treatment of Clarksburg, West Virginia VA Medical Center patients. Secretary Derwinski's response of March 29, 1991, indicated that the Dean of West Virginia University (WVU) Medical School, Dr. Robert M. D'Alessandri, has been working with the Director of the VA Medical Center in Clarksburg to identify a viable plan through which veterans would be treated at WVU's Ruby Memorial Hospital at Medicare DRG rates. Under the plan under consideration, care would be provided at Ruby Memorial Hospital to VA patients by VA staff. While an extensive cost-benefit analysis has not been done, it appears to be that it would be more cost effective for VA to continue referring veterans requiring tertiary or specialty care to appropriate VA Medical Centers, including the VA Medical Center in Pittsburgh. Without an extensive cost-benefit analysis, how can the VA determine that it would be more cost-effective to continue to use the VA Medical Center at Pittsburgh?

ANSWER: Sending a patient to a non-VA facility entails a specific per diem or episodic cost which would be higher than testing the patient in an existing VAMC.

The Veterans Health Administration operates on a regional or system basis. When capacity exists at a VA Medical Center, referral is less costly than referring to a non-VA facility. Basic costs for staffing, equipment etc, have already been made available at the existing facilities for patient treatment. Additional referrals within the capacity at the VAMC, necessitate very little additional expenditures. Sending a patient to a non-VA facility would entail special per diem or episodic costs since these costs were not initially built into the non-VA facility's basic operating funds.

SENATOR BYRD: Has the VA taken into consideration that many veterans have third party insurance, and those over 65 can use Medicare for their hospital bills? Care as it is outlined in Dr. D'Alessandri's plan would be provided by VA doctors and the hospital bill of third party insurance would be borne by Medicare.

ANSWER: No. Under current law Medicare is precluded from being the primary payor for veterans treated by the VA.

SENATOR BYRD: Does the VA have currently in place a means of identifying these patients so that they could possibly receive more timely care at WVU?

ANSWER: No. Patients are evaluated based upon critical treatment need and availability of services at VAMC Pittsburgh or other VA facilities.

SENATOR BYRD: Under provisions established in the Federal Register, emergency care can be provided at WVU Ruby Memorial Hospital by using Medicare DRG rates. This past year, Clarksburg conducted approximately $100,000 of emergency care at WVU due to a lack of bed availability at the VA Medical Center in Pittsburgh. I am concerned that due to the overcrowding and proximity of the VA Medical Center in Pittsburgh, many West Virginia veterans are not receiving adequate and timely care. Has the VA tracked these emergency care expenses at Medicare DRG rates to get an adequate cost breakdown per veteran, so that they can reasonably determine the cost impact of patient referrals from Clarksburg to WVU?

ANSWER: No. we have not analyzed these costs on a per veteran basis.

SENATOR BYRD: May I have your assurances that the VA will work to coordinate and implement a program between the Clarksburg VA Medical Center and WVU Ruby Memorial Hospital, to provide West Virginia veterans with better medical care within their localities?

ANSWER: We will continue to explore possibilities with the Dean. However, we believe it is more cost effective for VA to continue referring veterans requiring tertiary or specialty care to appropriate VAMCs, including the VAMC Pittsburgh.

HUNTINGTON VA MEDICAL CENTER CLINICAL ADDITION

SENATOR BYRD: The Committee was informed last year that the new clinical addition to the Huntington VA Medical Center was currently 30 percent complete, with anticipated completion in 1992. I have continued to monitor the progress of this project and on November 30, 1990, I wrote to Secretary Derwinski concerning this matter, as well as other VA West Virginia projects. In Secretary Derwinski's reply to me on March 29, 1991, he asserted that the completion of the clinical addition is currently scheduled for the spring of 1992.

Please provide for the record a schedule of significant milestone events associated with the completion of this project.

May I have your assurance that the VA will meet this target?

ANSWER: Every effort will be made to meet the current construction schedules for the clinical addition. The current milestones are:

Construction Contract Award	10/88 (Actual)
Notice to Proceed	12/88 (Actual)
Parking Structure Completion	3/90 (Actual)
New Clinical Addition Completion	Spring/92
Total Project Completion Date	Spring/93

HUNTINGTON VA MEDCIAL CENTER - ADDITIONAL PSYCHIATRIC BEDS

SENATOR BYRD: I continue to be concerned about the lack of inpatient psychiatric services at the Huntington VA Medical Center. It was anticipated that the opening of the new clinical addition would provide the space needed to create a 30-bed psychiatric ward at the Medical Center. Last year, the Senate Report accompanying the FY 1991 VA, HUD-Independent Agencies Appropriation bill included the following language at my request:

The Committee also continues to be very concerned about the lack of inpatient psychiatric services at the Huntington, VA Medical Center. It was anticipated that the opening of the new clinical addition would provide the space needed to create a 30-bed psychiatric ward at the medical center. Two years ago the Committee was informed that the planned phasing of the clinical addition construction had been modified to move the renovation forward and that the psychiatric ward could be opened in 1990. The Committee was later told that the construction project was scheduled for 1992. The Committee urges VA to accelerate its efforts to complete the clinical addition to the Huntington VA Medical Center.

On November 30, 1990, I wrote to Secretary Derwinski expressing my concerns about this project and requesting that he provide me with an updated status report on this and other VA projects within West Virginia. Secretary Derwinski's response on March 29, 1991, indicated that the completion of the clinical addition is scheduled for the Spring of 1992, and activation of the clinic will vacate the area designated for the 30-bed psychiatric ward. The renovation of that area will be completed by the summer of 1992. May I have your assurances that every effort will be made to keep this project on its current schedule? Please continue to keep me fully advised on the status of this project, such as significant milestone events leading to its completion.

ANSWER: The information provided on March 29, 1991 is still the current schedule. The overall project is currently 6% complete. The clinical addition building is scheduled for completion in the Spring of 1992. With the activation of the new clinic, the area designated for the 30-bed psychiatric ward will be vacated for renovation. The renovation of that area is scheduled to be completed by the Summer of 1992. The overall project completion is scheduled for the Spring of 1993. Every effort will be made to complete the project as currently scheduled. Funding for this renovation and subsequent conversion of space suitable for providing 30 psychiatric beds is included in the funding for the Clinical Addition project.

HUNTINGTON VA MEDICAL CENTER RESEARCH ADDITION

SENATOR BYRD: I am concerned about the delays in the construction of the research addition to the VA Medical Center in Huntington, West Virginia. This project is now scheduled for construction in Fiscal Year 1994 with advanced planning funds provided in Fiscal Year 1991. Last year, the Senate Report accompanying the FY 1991 VA, HUD-Independent Agencies Appropriation bill included the following language at my request:

> The Committee continues to support the construction of a research addition to the Huntington, WV, VA Medical Center. The Committee has added $250,000 in advance planning funds so that construction of the addition can be started in fiscal year 1994, in keeping with original plans. This addition will complete the major missions of the Huntington VAMC and will contribute to the quality of patient care and enhance the recruitment of highly qualified staff.

The completion of a research building for the Huntington VA Medical Center is an important and necessary addition to the Center, as such a complex would complete the major missions of the Center and contribute to the quality of patient care and the recruitment of more qualified staff.

On November 30, 1990, I wrote to Secretary Derwinski to convey my concerns and asked that he supply me with a status report concerning this matter, as well as other VA projects within West Virginia. Secretary Derwinski's response of March 29, 1991 outlined that this project will be on the Fiscal Year 1991 Advance Planning Fund List and is being considered for the Fiscal Year 1994 major construction program, but the final decision on this project will depend on Department-wide priorities and resources allocations. May I have your assurances that this project will receive the appropriate attention so as to preclude any more delays in construction of this project? Please continue to provide for me an update as to the status of this project, such as significant milestone events leading to its timely completion.

ANSWER: Project No. 581-053, Research Addition, is included in the Department's plan as a proposed Major Construction Project. The final decision on this project will depend on the Department's system-wide priorities and available resource allocations. Advance Planning Funds (APF) of $250,000 were allocated in FY 1991 to begin development of this project.

MARTINSBURG VA MEDICAL CENTER AND EXTENDED CARE FACILITIES

SENATOR BYRD: Last year, the Senate Report accompanying the FY 1991 VA, HUD-Independent Agencies Appropriations bill included the following language at my request:

> The Committee was told in an answer last year to a question for the record of the Department of Veterans Affairs Appropriations Hearing, that, if the circular A-76 approval were granted, the Martinsburg Medical Center laundry replacement facility would be considered for funding in fiscal year 1991, and that a project was being considered for fiscal year 1991 to renovate space at the Clarksburg Medical Center to accommodate an increase of 30 nursing

home care beds. Subsequently, the Committee has been advised that the laundry renovation and equipment replacement projects are now planned for 1993 and that a domiciliary unit containing 200 beds is scheduled for inclusion in the advance planning fund for fiscal year 1992 with design and construction planned for fiscal year 1995. The Committee is concerned about the apparent delays in the imple-

In addition, I have written Secretary Derwinski of the Department of Veterans Affairs, requesting a status report on this matter, and other VA projects within West Virginia. Secretary Derwinski's response of March 29, 1991, indicated that the A-76 study completed in 1989 supported continuing in-house operations and that the replacement laundry project is scheduled for FY 1993. However, the ultimate inclusion of this project will depend on cost, Department-wide priorities, and the availability of resources. The renovation of an existing psychiatric nursing unit for a 30-bed nursing home care unit has been proposed for FY 1994 as a minor project at the VA Medical Center in Clarksburg, West Virginia. Secretary Derwinski's letter also stated that the 200-bed replacement domiciliary at the Martinsburg VA Medical Center has not yet been identified in the VA's Five Year Medical Facility Development Plan. This is contrary to Secretary Derwinski's response on March 30, 1990, in which he advised me that the domiciliary unit containing 200 beds is scheduled for inclusion in the Advanced Planning Fund for FY 1992, with design and construction planned for FY 1995.

I am very concerned about the apparent delays in the implementation of these projects.

Please provide for the record a full status of these projects, including significant milestone events and specific schedules leading to their completion.

ANSWER: Laundry - The A-76 study supports VA construction of a new laundry at the medical center. It is currently planned for construction in FY 1993 in the minor construction program at an estimated cost of $1.9 million, $2.9 million with equipment.

Domiciliary - The "Replace Old Domiciliary" project would involve demolishing old wood frame buildings and the construction of a new facility for 200 beds. The project is currently planned for APF in FY 1993 and construction funding in FY 1996 pending nationwide priorities and the availability of resources.

Project No. 540-030, Renovate Sixth Floor Nursing Home Care Unit (NHCU),is proposed as a Minor Construction project in the Medical Center's Five Year Facility Plan for FY 1994 Design Funding and FY 1995 Construction Funding. The project would renovate space on the sixth floor, which now houses psychiatric patients, for nursing home care use.

Before the NHCU project can be implemented, however, Project No. 581-029, Renovate 5th Floor, must be completed. this project remodels the entire fifth floor to accommodate 35-40 psychiatric patients (moving from the sixth floor). Significant space and functional deficiencies as well as failing utilities necessitate a total renovation. This is a Minor Construction project proposed for Design funding in FY 1993 and Construction funding in FY 1994. Thus, the scheduling of the NHCU project will depend on the completion of project 581-029.

BECKLEY VA MEDICAL CENTER

SENATOR BYRD: What is the latest status of the $15.7 million clinical addition project at the Beckley, West Virginia VA Medical Center? The FY 1989 budget included, at my request and at the urging of the Committee as expressed in language which I secured in the Committee reports for the previous three years, an amount of $15.7 million for this priority construction project. The architectural/engineering contract was awarded on September 23, 1988, and bids were received for this project on October 4,1990. The low bid was 40 percent over the cost estimate which was developed for the VA. The VA is currently conducting a value engineering evaluation of the design to see if aspects of the design can be accomplished in a less expensive manner. This will be accomplished without a reduction in the scope of the project. Once the value engineering evaluation has been completed, the project will be rebid, with award expected this fiscal year. Based on the bids received on October 4, 1990, does the VA anticipate requesting additional funding for this project? If so, how much is needed?

ANSWER: The original solicitation on the Beckley project was canceled after high bids were received in October, 1990. The A/E is close to completing the revisions to the construction documents and a revised solicitation will be going out shortly. This project is being value engineered and redesigned with the anticipation of making significant cost reductions. A cost limit increase/reprogramming may be necessary to award the Beckley Clinical Addition and Alteration project.

BECKLEY VA MEDICAL CENTER STATUS/SCHEDULE

SENATOR BYRD: I am concerned that these issues will cause excessive delays in this much needed project. Please provide for the record an update on the status of this project, including significant milestone events leading to its completion. Your response should include, but not limited to, anticipated dates for the contract award, dates for completion of the value engineering evaluation, construction completion dates, possible groundbreaking, dedication, and occupancy. I would be appreciative if the Secretary could keep me updated on a continuing basis on this project. May I have your assurances on that?

ANSWER: You have our assurances that VA will keep you appraised of the status of this project as it develops. The current milestones are:

Complete Value Engineering	3/91	Actual
Complete Redesign	4/91	Actual
Advertise Bid Solicitation	5/91	Actual
Issue Bidding Documents	5/91	
Open Bids	6/91	
Award Contract	9/91	
Groundbreaking	10/91	
Project Completion	4/94	
Dedication	5/94	

BECKLEY VA MEDICAL CENTER LAND ACQUISITION

SENATOR BYRD: Last year, in the Senate Report accompanying the FY 1991 VA, HUD-Independent Agencies Appropriation bill, the Committee again included the following language at my request:

> Last year the Committee urged VA to purchase a parcel of land adjacent to the Beckley VA Medical Center. This parcel of land is the only undeveloped land adjacent to the hospital as its purchase would provide the Federal Government with the flexibility of using it in the future. It is the Committee's understanding that the mid-Atlantic region has endorsed a local recommendation to explore the feasibility of acquiring the subject property and that this adjacent property would provide a desirable location for siting any future structure such as a nursing home care unit. The Committee urges VA to complete its review of the need for this land and to complete its purchase as expeditiously as possible.

Your response to my questions on this matter last year is as follows:

> The parcel of the undeveloped land adjacent to the Beckley VAMC has been identified and reviewed for its possible use for parking by the facility. The Clinical Addition project currently under construction, however, has included adequate parking in the scope of the project. The parcel of land under consideration, while adjacent to the Medical Center, lies at the bottom of a 50 foot bluff from the Medical Center and is, therefore, not functionally appropriate as a possible location for other clinical or support services.

The Mid-Atlantic Region endorsed using this land for a nursing home care unit, not for extra parking for the clinical addition. Why did the VA evaluate this land in reference to using it for extra parking for the Beckley VA Medical Center? Please provide for the record the intentions of the VA in acquiring land for the possible future development of a Nursing Home Care Unit for the Beckley VA Medical Center.

In addition, on November 30, 1990, I wrote the Secretary of the Department of Veterans Affairs, requesting a status report concerning this matter. The Secretary, on March 29, 1991, stated in his response that at this time the VA has no need to acquire additional land adjacent to the Beckley VA Medical Center. This response and the earlier response is inconsistent with the proposal of the Mid-Atlantic Region, which I believe would be a positive use of the land and a supportable initiative by the VA in West Virginia. Although the VA Central Office may not fully support the proposals of the Mid-Atlantic Region with regard to the development of this tract, I believe the previous answers supplied to me are unsatisfactory and that this year's record should be developed to take into account the possible development of this tract of land, which I am advised is the only buildable area adjacent to the existing facility.

Please provide for the record an explanation of the intentions of the VA in acquiring land for the possible future development of a Nursing Home Care Unit for the Beckley VA Medical Center, including a full discussion of the possible development of the land along the lines suggested above.

ANSWER: Originally, a project was planned for the Beckley Medical Center to build a 120 bed nursing home care unit. However, current projections indicate a need for only 60 nursing home care beds for the VAMC Beckley for FY 2005.

The Beckley VAMC currently has 42 operating Nursing Home Care beds. A minor project is now being planned, which will increase the nursing home care beds by 18.

There are no other projects planned of the magnitude that would necessitate the purchase of this land.

QUESTIONS SUBMITTED BY SENATOR HATFIELD

SENATOR HATFIELD: As the result of last year's budget compromise and the deficit reduction legislation, benefits to service-connected disabled veterans and their survivors have been affected significantly. The Committee is especially concerned about a provision which applies to incompetent veterans who have neither spouse, dependent child, nor dependent parent, and whose estates, excluding the value of veterans' homes, exceed $25,000. For those veterans, compensation payments may not be made until the value of the estate is reduced to less than $10,000. How many veterans are affected by this mandate and what steps is the Veterans Administration making to inform the public as to this change?

ANSWER: We estimate that, at the time the law was enacted, 11,400 incompetent veterans met the criteria for discontinuance of compensation benefits.

Shortly after the law was enacted, the Deputy Secretary and staff briefed service organizations on the provisions of the Omnibus Budget Reconciliation Act of 1990 (OBRA). The Chief Benefits Director and staff also conducted a similar briefing. In addition, VBA representatives provided separate briefings to both VFW and American Legion officials. In December 1990, a letter was sent to all fiduciaries of incompetent veterans in receipt of compensation benefits to advise them of the provisions of the new law. The letter informed them that their individual cases would be reviewed and that they would be advised if VA proposed to terminate their benefits. (In the case of incompetent veterans who are paid under "supervised direct pay", letters were sent directly to the veterans.)

At the local level, VA field station personnel discussed OBRA provisions with service organizations and other concerned groups and individuals in their jurisdictions. In addition, several field stations held meetings with representatives from financial institutions to discuss the OBRA provision pertaining to incompetent veterans. A number of these meetings were held as the result of the financial institutions' concern regarding the law's impact on the fees they receive for handling VA fiduciary cases.

SENATOR HATFIELD: With regard to the issues surrounding the taxation and subsequent recoupment by the Veterans Administration of disability severance pay awarded to disabled service members, please provide the Committee with an update on how the V.A. is handling inquiries by veterans on this issue. Are discussions with the Internal Revenue Service on correcting this matter still ongoing?

ANSWER: When veterans inquire on this issue, they are informed that recoupment of the gross amount of disability severance pay through withholding of compensation is required by law regardless of whether or not the severance pay was taxed. The statutory and regulatory citations are provided, and a copy of the inquiry is forwarded to the Department of Treasury for reply on the issue of taxation. We are not aware of any ongoing discussions with the Internal Revenue Service on correcting this matter. It appears that legislation would be required to resolve this issue.

SENATOR HATFIELD: Recently the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) has completed a follow-up survey to review type one recommendations at the VA Medical Center in Portland, Oregon. It is my understanding that the JCAHO has recently resolved all type one recommendations and has assured that the Center is now in complete compliance with JCAHO standards. In other words, the conditional accreditation has been removed and the facility is now fully accredited. Is this your understanding as well?

ANSWER: Yes. JCAHO has removed Portland VA Medical Center's conditional accreditation, and the facility is now fully accredited. The facility still has type one recommendations for two standards in regard to minor documentation issues in home health care. We wish to point out that the facility had the appropriate home care documentation prepared at the time of the scheduled home care follow-up survey in December 1990. However, due to a scheduling problem at JCAHO, the home care follow-up survey was not conducted, and the facility did not have the opportunity to present the documentation. This has resulted in the facility having to submit a written progress report to JCAHO on these home care documentation issues. The facility has prepared the written progress report, which will be submitted to JCAHO in early May. We are confident that after reviewing the written progress report, JCAHO will remove the two type one recommendations.

U.S. COURT OF VETERANS APPEALS

STATEMENT OF HON. FRANK Q. NEBEKER, CHIEF JUDGE, U.S. COURT OF VETERANS APPEALS

ACCOMPANIED BY:
ROBERT F. COMEAU, CLERK
JAMES L. CALDWELL, JR., CHIEF DEPUTY CLERK
DEBORAH CREEK, BUDGET OFFICER

INTRODUCTORY COMMENTS

Senator MIKULSKI. The subcommittee will now take testimony on the Court of Veterans' Appeals.

Chief Judge Nebeker, this is your first time before the subcommittee and I welcome you. You are joining quite an array of superb agencies within this subcommittee's jurisdiction and we want to give you a very cordial welcome today.

We know that the Court of Appeals was created in October 1989, and for the first time, veterans who are not satisfied with the decision made by the VA's Board of Veterans Appeals may challenge these decisions before a court of law.

You are requesting a budget of $9.1 million, which is an increase of $1.7 million, or 22 percent. The increase that you are seeking would go primarily to hire 18 new staff. We are looking forward to hearing from you this afternoon and learning about how the court is doing. We are looking forward to hearing your budget request and, essentially, a status report on the court itself.

SUMMARY OF FISCAL YEAR 1992 BUDGET ESTIMATES

Judge NEBEKER. Thank you, Madam Chair. It is indeed the first time that I have appeared before this subcommittee and I appreciate the enthusiastic welcome which was given me.

I also appreciate the opportunity to present our proposed budget to this subcommittee on the substance or program of the court's mission. It is my purpose, in writing and orally, to show that the court will be fiscally responsible yet able to discharge its duties, and as you observe, our duties are to fairly, impartially, and promptly review adverse benefits decisions from the Board of Veterans Appeals for error at the administrative level.

To that end, we have budgeted for space a substantial increase—$1.8 million—and that is for rent on the court's permanent quarters at 625 Indiana Avenue. I would like at this point to extend an invitation to you and any member of the subcommittee and the staff to come see our new quarters. We are proud of them and we think they are fitting to the task which we have been put to.

We have, for obvious reasons of current knowledge, had to increase our security, and so we have done so as indicated in the budget, around $125,000. Our expansion, as you point out, for nonjudicial staff will put us at a level of 105 FTE's. Our library computer research capability must be enhanced in order that we can at least have the same research capacity that the General Counsel of the Department has when they appear before the court.

Judicial salaries and staff have necessarily been increased for this year because we are now full strength, with seven active judges. Our training and travel have been reduced and our miscellaneous supplies and equipment requests have likewise been reduced.

That would conclude, unless you have any specific questions, my presentation at this hearing on what our proposed budget is for fiscal year 1992. Would it be your pleasure that I go forward into a skeleton report on the status of the court's work?

Senator MIKULSKI. Yes, please, because that goes to the nature of the questioning and also, before we move into the questions, I know you will want to introduce your team to us, judge.

Judge NEBEKER. I am sorry; yes. As the written statement indicates, present today are Mr. Robert Comeau, the Executive Officer and Clerk of the Court, Mr. Jim Caldwell, our Chief Deputy Clerk, and Ms. Deborah Creek, our Finance Officer.

STATUS OF COURT OPERATIONS

Since November 1989, there have been 2,364 cases filed with the court. This is as of March 31 of this year. Now, I understand that there is an interest in the following figures, and I will supply them, and then, of course, be prepared to comment as you may desire.

In 64 percent of those cases, the veteran is unrepresented. That poses a serious programmatic problem for the court. A total of 24 percent are represented by attorneys and 11 percent by nonattorney claims representatives. We have a 1-percent representation by relatives, guardians, et cetera.

Senator MIKULSKI. Do you want to repeat those numbers again, judge?

Judge NEBEKER. Surely; 64 percent of the veterans are appearing in our court without representation.

Senator MIKULSKI. That is the so-called pro se——

Judge NEBEKER. Correct; 24 percent are represented by counsel—attorneys—11 percent by nonattorney claims representatives, 1 percent by relatives, guardians, and the like.

We have issued—I am sorry, we have decided, thus far, 512 cases. Of that number, 50 have been by written opinions. I would add that a court beginning the formation of its jurisprudence must be exceedingly careful in issuing its first few opinions to ensure that they are issued in the right kind of cases and, of course, that they are correct in the decision. They will have an impact, an administrative impact on the Department, and we are appreciative of that fact.

During March of this year, the court issued 830 procedural orders. This, again, can relate back to that 64 percent pro se rate.

We have admitted to practice before the court 283 attorneys. Many have sought admission to the bar of the court because they were there to represent a veteran in one case. There is a question whether they will continue to maintain their membership in the bar of the court. We have presently admitted to practice before the court 19 nonattorney claims representatives.

Senator MIKULSKI. Did you have more that you wanted to say?

Judge NEBEKER. No; I have nothing further at this point, except that I will attempt to answer any questions you may have.

[The statement follows:]

STATEMENT OF FRANK Q. NEBEKER

Mr. Chairman and distinguished members of the subcommittee, on behalf of the Court, I appreciate the invitation to present for your consideration the fiscal year 1992 budget for the United States Court of Veterans Appeals. The Court is relatively new and, thanks to the continuing support of this Subcommittee and others in the Congress, has been able to establish most of its administrative programs and begin to issue decisions. The Court has completed its first full fiscal year, having been in operation since October 1989. From October 1989 through July 1990, the Court operated with only three of its seven authorized judgeships filled. Of the four remaining judgeships, three were filled in August 1990, and the fourth in September 1990.

During the past year, the Court has focused on significant legal issues which will shape the jurisprudence of the Court for years to come. Copies of these seminal decisions have been provided to the Subcommittee on a regular basis and have been reported widely in the veterans' media. The Court has made substantial progress in establishing its judicial processes and administrative programs. Notably, the Court appointed an Ad Hoc Rules Committee and issued the Interim General Rules of the Court. A Rules Advisory Committee was created to review public comments on the Interim General Rules, and to develop recommendations for the final General Rules. The Court published its proposed final Rules of Practice and Procedure on February 13, 1991.

While a more definitive listing of the Court's administrative accomplishments is included in its fiscal year 1992 budget submission, the following are among its most significant: Execution of the appointments of the Court's four remaining associate judges; the final planning and accomplishment of the design and buildout of the Court's permanent office location, and the move of the Court to its new facility; the establishment and initial stocking of the Court's central library; the execution of a contract for a 5-year task plan to evaluate the Court's automated functional requirements and to provide automated processing systems; the completion of the first actuarial study for the Court's retirement system; and the establishment of an Admissions Committee to develop and implement procedures for screening practitioner applications.

In fiscal year 1992, the Court anticipates several significant program-related changes. These include:

Expansion of the Court's security arrangement, based on the initial recommendations of the U.S. Marshals Service, to provide adequate protection of the Court's new permanent facility. A total of five Court Security Officers (CSOs) is recommended to provide security on a daily basis, and the Court must fund all costs associated with this program. An additional $125,000 will be needed for three more CSOs, one of whom was hired in January 1991 on an emergency basis to enhance security pending approval of permanent funding.

The reduction of the Court's travel and transportation costs from $160,000 to $100,000, as a result of its decision to postpone the conduct of hearings outside Washington, D.C., until a sufficient statistical basis is developed to project adequately the need for hearings by geographical region.

Expansion of the Court's ability to support the legal research needs of its judges, the judicial staff, and central legal staff for computer-assisted legal research. An additional $145,000 is needed to support access to WestLaw and Lexis, and to provide access to other computer-assisted legal research tools similar to those which the Department of Veterans Affairs, the appellee in all of the Court's cases, makes available to its legal staff.

Reduction of the funding needed to support the Court's admissions committee from $100,000 to $25,000, and the approval of an additional $45,000 in funding to support the inception of a Judicial Conference for the Court. The reduction in funding results from the committee completing its initial work of reviewing the Court's admissions and related needs. Further work is needed on establishing standards for admissions, and the procedures for reviewing applications. Regarding the Judicial Conference, the Court proposes to develop and inaugurate an annual Judicial Conference program to provide the judges, other Court personnel, and the bar with a periodic and structured opportunity to meet and discuss the salient legal issues facing the veterans' community. The first conference would be held early next year.

The Court did not reach its full complement of judges until late in the last fiscal year. This fact, plus the inherent difficulty in projecting statistical trends without established benchmarks, makes caseload projections very tentative. However, the statistics for one recent month may assist the Subcommittee by providing a snapshot of operations. In January 1991, the Court received 179 new cases. In addition, 307 motions were filed, 610 orders were issued, and there were dispositions in 28 cases. The Court will continue to monitor trends in our caseload both to gauge and project the Court's overall workload. The Court will keep this Subcommittee and other pertinent Congressional Committees advised as the Court's longer-term trends become apparent.

Under the procedural time periods established by the Court's Interim General Rules of Practice, in the best of all worlds a case would progress from filing to a judge for initial review in 156 days. The Court's recently released Rules of Practice and Procedure extend that time to 180 days. I must hasten to add that virtually no case moves at the pace established by the time periods of the Rules of Practice and Procedure. In many instances, there are case-related legal subissues that must be resolved, and there must always be additional time allotted for the Court to conduct its legal analysis and procedural process. However, assuming the Secretary's representative and the appellant's representative or attorney closely adhere to the established procedural time requirements and that there are no side issues requiring resolution, a case could move through the procedural process and be submitted to a judge for review within 180 days.

Cases in which the appellant is unrepresented have virtually no prospect of moving according to those time lines established by the Court's Rules of Practice and Procedure and therein lies a major problem. The Court has experienced a fairly consistent increase in the number of cases filed by unrepresented appellants who are unfamiliar with the judicial process in general and with Court procedures in particular. Currently, 64 percent of all case filings are by unrepresented appellants. The Court has no available mechanism for appointing or paying counsel. Unrepresented appeals must be resolved with the same vigor and fairness as are represented cases, but many of these unrepresented appeals are handwritten, intemperate, and difficult to understand. As a result, almost two-thirds of our cases require the use of substantial additional staff resources and attention to prepare the case properly for review by a judge.

In conclusion, I appreciate this opportunity to present the Court's budget request for fiscal year 1992 and want to express my gratitude again, and that of all the Court's judges, officers, and employees, for this Subcommittee's support. We will be happy to answer any questions the Subcommittee may have regarding the Court's budgetary and appropriation needs.

Senator MIKULSKI. Thank you, Judge.

I would like to move on to questions, and then you can see, in the way we talked to VA, our primary concern is service to veterans, and our concern that veterans, No. 1, get what they are entitled to and get what they are entitled to in a timely way.

That, quite frankly, was the legislative thrust for establishing the court over which you are the chief presiding officer, so that the veteran always feels they have an outside, independent board, or court, if you will, that would have the final decision on their eligibility for pension or disability benefits. It has the characteristics of an independent judiciary.

Judge NEBEKER. Yes.

CONDUCTING HEARINGS OUTSIDE WASHINGTON, DC

Senator MIKULSKI. Now, let me understand a couple of things. A veteran must appear in person; is that correct?

Judge NEBEKER. No.

Senator MIKULSKI. Here goes my concern. We have one court. It is in Washington. We are a wonderful, big country. What happens to the veteran who wants to come to file a court appeal who is from

California, or Oregon? Do they have to come at their own expense to be there for the presentation of their case?

Judge NEBEKER. No, indeed; they do not.

The authorizing legislation empowers the court to travel and we have anticipated the need for some travel, but it is not necessary for an appellant—a veteran—to appear personally in our court. He must, as the law provides, file a notice of appeal with us within the 120-day statutory period.

After that, it is necessary to find out from him what it is he is complaining about—what points he wishes to make to us. This is often very difficult for a pro se veteran to understand and we spend a great deal of time. It is very labor-intensive, trying to get from the veteran precisely what it is that he is complaining about, other than the fact that he has simply been denied benefits.

CASE MANAGEMENT

Senator MIKULSKI. Who does that inventory of concerns?

Judge NEBEKER. Our nonjudicial staff.

Senator MIKULSKI. So the Court of Appeals' nonjudicial staff does?

Judge NEBEKER. Yes; once we can discern what it is that the appellant wishes to raise, it is possible then for the Secretary, who has custody of the records, to prepare a record of the germane material for the appeal, and that is called a record on appeal.

After that is prepared and transmitted to the court—and, of course, the veteran or his attorney or his representative must, of necessity, have a copy of those materials—it is then incumbent upon the veteran to submit a brief, just as it is in any Federal or State appellate court.

Once the two briefs are filed—the brief from the Secretary following—the case is ripe for submission or decision. Now, at that point, the question is posed, Does the case merit oral argument? Not every appeal case does merit oral argument, particularly if it entails travel throughout the country to hear these cases.

As a substitute for travel, we are experimenting with telephone oral arguments, and we have used them on a number of occasions up till now, found them quite satisfactory, but surely no substitute for a personal appearance by a representative. I underline, "by a representative," because it really is of no value to the veteran to ask him, as a pro se, to appear before the court to present oral argument. He is simply not equipped to do so and is confused and, of course, confusion can breed distrust and outright anger.

ORAL ARGUMENTS

Really, the problem that the court has got to grapple with is the unrepresented appellant, because most of those cases, when they get to issue, are simply submitted without benefit of argument.

Senator MIKULSKI. Well, I am going to come back to that.

Judge NEBEKER. All right.

Senator MIKULSKI. But I want to be clear that a veteran who has now gone through several processes, very often has probably gone through their life savings, or their nest egg, or their safety net, while they are waiting for the Government to decide his or her fate, then to have to come here from North Dakota or Oregon, which in and of itself is an extraordinary expense—and some of the veterans are quite ill, or they are old, or any number of things.

So my question really is, Are there mechanisms in place or being developed so that the veteran does not have to make enormous personal sacrifice to get due process? You feel that these telephone hookups, and so on are adequate because it is unlikely that the court can travel to all 50 States or to regional areas.

Judge NEBEKER. I am sure the court could not travel to all 50 States. If a case warrants oral argument, its the kind of case that at least requires three judges to decide. That would entail three judges traveling to wherever the representative of the veteran is. I underline that it really would not be helpful to have oral argument by the veteran himself.

Senator MIKULSKI. Judge, what percentage of the veterans who appeal to the court have oral arguments?

Judge NEBEKER. Well, I do not have the exact figure. I think I could supply that for you.

Senator MIKULSKI. Could you just make an approximate—or could your clerk?

Judge NEBEKER. I would say of those who are represented before the court, 4.7 percent are argued orally. That is a guess.

In many of the cases, oral argument will not be helpful. The issue is clear, the record is clear, and we just do not need a verbalization of the contention or facts.

CASELOAD

Senator MIKULSKI. Well, I am going to come back to the pro se veteran in a minute, but let me ask you, I am concerned that this new court is developing a backlog, and this then goes to what are the resources necessary? Is it the way the court operates or is it the way that Congress has funded its operation?

The CVA received 1,600 cases in 1990. It processed completely 430. This comes out to about 35 cases per month, and currently there are 1,800 pending cases before you and the court is less than 1½ years old.

Judge NEBEKER. That is true.

Senator MIKULSKI. Could you tell us why there are so many cases pending, because I am concerned we are once again in the rolling backup that veterans face, first in their initial application, then in going to the Board of Appeals, and now, the Court of Appeals.

Judge NEBEKER. Well, the major problem, or the major reason for this backlog is not underfunding and it is not the way in which the court is disposing of cases, it is these pro se cases that cannot be brought to issue. It is very, very labor intensive to work with these veterans to try and find out what it is—what their complaint is. Once we can ascertain what their complaint is, then the Secretary can get us a record from which we can make a review and make a decision.

Let me add, if I may, to that response. As a result of our concern over this growing number of cases that are not maturing the way they should for decisional purposes, the court has appointed an advisory committee on representation. It is a five-member committee and it is going to report to us on or about June 1 with a recommendation or recommendations as to what the court might do to ensure that unrepresented veterans get some kind of representation.

PRO SE APPELLANTS

Senator **MIKULSKI**. Well, what does "unrepresented veteran" mean?

Judge **NEBEKER**. The pro se.

Senator **MIKULSKI**. Yes; but what does unrepresented mean? Does it mean that they are not represented by counsel? Does it mean that their legal counsel——

Judge **NEBEKER**. It means they are not represented at all.

Senator **MIKULSKI**. That is what I was going to say, because as I understand, when people come before the court they are represented currently in two ways: legal counsel or by the veterans' service organizations.

Judge **NEBEKER**. Yes.

Senator **MIKULSKI**. And in many instances because of the nature of the court, the DAV has been handling for the VSO's about—over 50 percent.

Judge **NEBEKER**. Well, they are carrying the major load of the 11 percent of our cases that are represented by nonattorney claims representatives.

Senator **MIKULSKI**. So you have a whole other category that is not represented by anybody.

Judge **NEBEKER**. That is the 64 percent.

Senator **MIKULSKI**. They are not even represented by the VSO's?

Judge **NEBEKER**. That is correct.

Senator **MIKULSKI**. Now, what do you do with those folks?

Judge **NEBEKER**. They are the ones that are so time consuming. They are the ones that——

Senator **MIKULSKI**. Well, I know they are time consuming, but what do you do with them, judge? Who handles it? Is it the nonjudicial people? Should there be greater involvement of the veterans' service organizations? I mean, I know that these are time consuming.

Judge **NEBEKER**. They are the ones that are hard to get to the issues. Once they get to the issues, they can go to the judges and be decided.

Senator **MIKULSKI**. But who talks to them? How many people do you have talking to them? What is their training?

Judge **NEBEKER**. We have the central legal staff that deals with them often by telephone, in an effort to ascertain what it is they are complaining about.

They must, first of all, be contacted and told what next they must do once their notice of appeal has been filed. That includes the various procedural steps that any court has for litigants before it.

They must have that explained to them and it is their next move. They have to tell us what it is they are complaining about and at that juncture we can then proceed to review the record in order to decide whether the board committed error in its decision.

Senator **MIKULSKI**. How many staff do this?

Judge NEBEKER. We have about 35 nonjudicial staff at the present time.

Senator MIKULSKI. Nonjudicial staff——

Judge NEBEKER. Nonjudicial.

Senator MIKULSKI. How many people do you have assigned to make these phone calls and handle this?

Judge NEBEKER. I would estimate about 20 to 25 people.

Senator MIKULSKI. And what is their training?

Judge NEBEKER. They are experienced people. I have taken them from other courts. They are experienced in what is needed by way of a court of appeals in order to get a record together and in order to get briefs filed.

They call and explain in English what it is——

Senator MIKULSKI. Are they lawyers?

Judge NEBEKER. Not all; a few are lawyers.

CASE MANAGEMENT

Senator MIKULSKI. Well, let me just say this. It seems that what is needed here is, with all due respect to the legal profession, a certain kind of social service function in which you need skilled interviewing techniques.

There is no doubt that people have been confused, and quite frankly, these veterans have been jerked around.

And in the process of that, to get on the phone and have somebody say, "Well, Mr. Glockenspiel, you need to submit form H–2–Q," and go on and have conversations that are somewhat of a legal or paralegal nature can be confusing.

There are people who have specific skills with specific training that know how to acknowledge the frustration and understand that people talk in terms where they tell their stories anecdotally. People do not sound like briefs when they tell their story.

I am interested in helping you with your backlog and that is why I am asking you these questions. It seems to me that we are heading for more of a backlog if we do not put into place the kind of personnel to help you with this really sad situation of 64 percent of the veterans not having anybody to speak for them.

Judge NEBEKER. Well, of course, and I share that concern. Being a court, we are an umpire, and we cannot advocate for the veteran.

Senator MIKULSKI. I am not asking you to be an umpire, Judge, I am asking you to do your intake and I am asking you to have the right kind of personnel to have your intake.

REPRESENTATION

Judge NEBEKER. Well, and what the veteran needs is representation. The case will go through the court and be ready for submission quite promptly if the veteran is represented by someone knowledgeable in how to handle the case at the appellate court level.

Senator MIKULSKI. Well, Judge, what kind of representation do you want to ensure that they get? When you say you want to make sure they get represented, what operationally would that mean?

Judge NEBEKER. I am not sure I can tell you at this point. Our committee is charged with making some recommendations to us so that we can explore all possible avenues of securing or obtaining representation for these folks, short of publicly funding some kind of law office if you will on a par with the General Counsel's office of the Department.

Senator MIKULSKI. Well, let me tell you something, Judge. We are not starting a public defender's office here.

Judge NEBEKER. And I do not want to have to ask you for it.

Senator MIKULSKI. Let me say this, with all due respect, the last thing I want is to have some underfunded, second-rate, over-caseload group of young people trying to earn their legal bones on the back of veterans, coming in at the last minute, thumbing through papers the way I see our overworked public defenders doing, and saying, "What is your name, what are you charged with, murder?" That is the way the public defenders operate. We are not going to have a public defender framework here.

Judge NEBEKER. I do not want it either.

Senator MIKULSKI. So the question is, how do we get to the representation and I will tell you, the veterans service organizations [VSO] feel that they could represent a substantial amount of the pro se cases, have the expertise of knowing how to communicate with veterans because they do it all the time and have a certain camaraderie, and I think they are concerned that they are going to end up not being able to really represent people before the court.

Judge NEBEKER. And I remain at a loss to explain why they have not come in to represent veterans. The American Legion does not represent anyone before our court. There are many other organizations that do not, and some few cases are represented, mainly by the Disabled American Veterans.

And they do a pretty good job. But here we are, 11 percent, only 11 percent are represented by VSO's.

ADVISORY COMMITTEE ON REPRESENTATION

Senator MIKULSKI. Well, is your advisory group involved in solving this problem?

Judge NEBEKER. Yes; they are represented on the group.

Senator MIKULSKI. Do you meet with the advisory group personally?

Judge NEBEKER. Yes.

Senator MIKULSKI. Have you essentially said to the VSO's, we are developing a backlog and a tremendous workload, 64 percent are not represented, how do you suggest we deal with it?

Judge NEBEKER. Yes; I have.

Senator MIKULSKI. And what have they said?

Judge NEBEKER. I have spoken to the past commander, at the time he was the commander of the American Legion, specifically saying, why will you not represent——

Senator MIKULSKI. But that is not the advisory board. What does the advisory board say?

Judge NEBEKER. We do not know yet. They have not reported to us yet.

Senator MIKULSKI. But have you put that question to them?

Judge NEBEKER. Oh, yes. That is one of their charges, to explore ways of getting VSO's involved in representing, not just here in Washington, but at the national level. Another charge is, could we get local bars throughout the country that have active pro bono programs to include veterans in them?

PROPOSED RULES OF PRACTICE AND PROCEDURE

Senator **MIKULSKI.** Is the Court of Veterans Appeals formulating or developing a proposed rule of practice and procedure which would require lay practitioners like the VSO's to have attorney supervision?

Judge **NEBEKER.** Yes; that is being considered at this point. It was part of the proposed general rules of the court. The court adopted its general rules to be effective on May 1, with the exception of the rule dealing with that subject.

That issue is still under consideration and indeed, is part and parcel of what we must decide based upon the recommendations of our representation committee.

Senator **MIKULSKI.** That is what I was going to say, would not this proposed rule be premature until you have your advisory group's report?

Judge **NEBEKER.** Indeed, the court took that view and that is why it took no action on rule 46.

Senator **MIKULSKI.** These matters are deeply troubling, that you are presenting here, and in terms of the administration of the court, you are the judge and we do not want to interfere in that, but we are concerned that this proposed rule of practice and procedure could have a chilling effect on the VSO or voluntary service participation.

We want to be sure that veterans are represented. It is a horrifying idea to think that veterans would not have a representation in a court in the United States of America. Not every legal issue needs a full-fledged lawyer ready to go to the Supreme Court.

Judge **NEBEKER.** That is right.

Senator **MIKULSKI.** We can talk about this.

Judge **NEBEKER.** That is correct.

Senator **MIKULSKI.** The voluntary service organizations have tremendous experience in knowing how to work with the veterans, to patiently listen to their stories and to encourage them to be more forthcoming because sometimes if you have been around the track, as they have on these, to even come to you, they are tired, they are frustrated, and they have told their stories so many times they do not want to tell it anymore. They just want you to know about it and do something about it.

Judge **NEBEKER.** One of the most responsible things that DAV does is when it gets these cases, they talk to these veterans upon their review of the case. If they conclude that there is no merit to it, they persuade the veteran to that effect, and the veteran goes away at least happy that somebody has taken a look at his case, and he agrees to dismiss the appeal.

I think that is an exceedingly responsible activity these nonlawyer representations through the DAV have undertaken. I am sure if they were able to expand their activities—and we were not talking about 11 percent, but we were talking about the 64 percent that go unrepresented—they could do a tremendous job in ensuring that cases get processed according to their merit in our court.

There is a problem, there is an idea that lawyers should be in effect at elbow. When a nonlawyer is before our court the discipline is different on appellate review than what it is at the administrative level, and our interim rule takes that into account.

Nonetheless, some of the judges of the court feel and favor the proposed rule 46. That action has been stayed for now. I cannot represent that the issue has been decided. It indeed has not been decided by the court.

But until we solve the 64 percent problem, the unrepresented problem, which I think is a much bigger problem than the question of whether a lawyer ought to be at the elbow of a nonlawyer representative before the court, we are really not going to solve the major difficulties that we have.

I would prefer to see the—this is me speaking now as Judge Nebeker, not for the court, I would prefer to see a vast expansion of VSO representation before the court under the rule as it presently stands.

I am not sure my colleagues will agree with that.

Senator MIKULSKI. Well, I do not know who is going to fund it. Because some of these things would require funding and if there is going to be recommendations to create a legal aide——

Judge NEBEKER. I am not suggesting that there is——

Senator MIKULSKI. With all due respect to the wonderful work a public defender framework does in another area, we know that it has not proved satisfactory.

REPORT OF THE ADVISORY COMMITTEE ON REPRESENTATION

Now, this committee has to make its decisions in July. Your advisory group is due in June, is that correct, Judge?

Judge NEBEKER. That is correct.

Senator MIKULSKI. We will want from you, really, before the Fourth of July break, because I know you will get your report and so, we need to hear what this advisory report is saying in terms of the direction you want to go in, so that we can meet our needs.

We would really encourage the executive and administrative thinking at the court to, one, review its own internal situation with the nonjudicial staff to see if it needs additional personnel and personnel with a background in these types of gathering of information. That is one, to deal with the backlog as you have said, and we would be very interested in talking with you about it because the last thing they need to do is wait another 18 months. That is No. 1.

Then No. 2 is how the 64 percent of the nonrepresented veterans will be represented, and we would encourage maximum utilization of the veteran services organizations.

Judge NEBEKER. And we would, too.

Senator MIKULSKI. Absolutely encourage that and then what it is we need to do that.

Judge NEBEKER. And if you could be persuasive with them, it would be great.

Senator MIKULSKI. Well, my experience is that there are certain veterans organizations that are intimately involved because yours is a pension disability decisionmaking area, and that would involve the paralyzed vets. It involves the DAV vets, even for veterans who are not their members, but still would have these conditions that would bring them before the court, as well as I believe, the VFW would probably be, and the AMVETS.

The American Legion is a special entity, and we pay our respect. But Judge, just to share with you what an extraordinary thing the AMVETS, the VFW, the DAV, and the paralyzed vets do for the Congress.

They get together and they give us an independent budget for VA. They really work together and all those questions you heard me get to did not come from Diane Sawyer on TV, it came from reading the independent budget.

And I only say that because the Court of Appeals is not really covered here, but those organizations really have done a tremendous job and stand ready and have such tremendous savvy here in Washington, that as you work with your advisory board, really consult with them on that.

We look forward to hearing more on this. We do not want a backlog. I know you do not want a backlog and anything we can do to work with you to make sure that happens would be appreciated.

So we need to hear from your financial officer and then perhaps additional conversations with you.

Judge **NEBEKER**. Thank you.

Senator **MIKULSKI**. Did any of your people want to add anything before we conclude?

ADDITIONAL COMMITTEE QUESTIONS

We will submit the balance of the questions for response in the record.

[The following questions were not asked at the hearing, but were submitted to the court for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR MIKULSKI

PRO SE CASES (UNREPRESENTED CASES)

QUESTION: How do cases without representation usually turn out?

ANSWER: The Court does not maintain such statistics. Generally, unrepresented cases as a group turn out less favorably for appellants than do represented cases simply because attorneys and veterans' service officers tend to screen potential appeals -- as they should -- and decline to represent those appellants whose cases are without merit or are frivolous. In addition, unrepresented appellants often are unable to respond to the legal issues raised by the attorneys representing the VA. The Court, nevertheless, gives careful consideration to all appeals in an effort to reach a proper result based on the applicable law and the facts in the record.

QUESTION: Do you believe your rules and procedures will be finalized in a form that will encourage VSO lay practitioners to appear before your Court? Isn't this a good way to decrease the number of pro se cases?

ANSWER: It is too early to predict the final form of the Court's rule on representation. The Court will evaluate the many comments it has received and the advisory committee report it awaits. It is difficult to see how the wording of a rule could be more "encouraging" to VSOs than Interim General Rule 46(b), which has been in effect since December 1989 and is being retained until October 1991, yet the number of pro se cases continues to rise and several large veterans' service organizations continue to decline to represent any appellants before this Court.

QUESTION: Of the cases that are represented by attorneys, what percentage of these are VSO attorneys?

ANSWER: The Court has not maintained such statistics. Eventually, when the Court's case management system is automated and the Court is able to divert resources from case processing to load historical data into the system, such statistics could become available. Meanwhile, we assume that those VSOs who have employed attorneys for Court representation (Disabled American Veterans, National Veterans Legal Services Project, and Paralyzed Veterans of America) maintain such information for their own purposes.

JURISDICTION

QUESTION: How many cases did CVA receive in 1990 that were filed prior to November 18, 1988?

ANSWER: The Court does not maintain statistics on the number of appeals filed in 1990 which involved Notices of Disagreement filed within the VA administrative system under 38 U.S.C. § 4005 before November 18, 1988. The Court has dismissed such cases for lack of jurisdiction, as it must under the Veterans' Judicial Review Act (Pub.L. No. 100-687, § 402 (1988)).

QUESTION: How did the Court advise these veterans -- should they file a new case before VA's Board of Veterans Appeals?

ANSWER: From the very beginning, the Clerk's office urges all pro se appellants and potential appellants to seek representation and sends them a list of all attorneys and claims representatives who are admitted to practice. If their appeals are dismissed and they ask what to do next, the Clerk's office advises them to consult an attorney, a veterans' service organization, or a state veterans affairs officer. It is generally inappropriate for an appellate court to advise a litigant on the course of action the litigant might take -- either in that court or in the administrative system which is reviewed by that court.

QUESTION: How many other cases -- and what kind of cases -- did the Court receive that it determined it did not have jurisdiction over?

ANSWER: The Court dismissed 512 cases from January 1990 through March 1991. The Court has not maintained statistics which disclose why. Most appeals were dismissed for lack of jurisdiction (Notice of Disagreement filed before November 18, 1988, or Notice of Appeal filed more than 120 days after the mailing date of the Board of Veterans' Appeals decision), but some were dismissed at the appellant's request and a few were dismissed for failure to take certain required steps under the Court's rules, such as filing a brief, after repeated orders, letters, and telephone calls from the Clerk's office.

DEMAND FOR SERVICES

QUESTION: CVA originally estimated it would receive 5,000 cases in the first year, yet only 1,621 were received in 1990. Why was caseload so far below estimates -- does this indicate you need to do more to make vets aware of the Court's services?

ANSWER: The Court did not make that estimate. The original annual caseload expectation was based on estimates provided by VA. We do not know why that number was not reached in 1990. In the absence of any other sound statistical basis for its caseload projections, though, the Court is reluctant to abandon the original estimates provided by VA. The number of appeals filed since the Court opened in late 1989 has continued to grow, as has the pool from which they are drawn -- those Board of Veterans' Appeals decisions which are adverse to claimants.

When the Board of Veterans' Appeals decides an appeal and does not grant all the relief which is sought, it sends the appellant a comprehensive notice which describes in some detail the options available to the appellant, including the right of appeal to this Court. In addition, VA describes the role and availability of the Court in its annually-updated pamphlet "Federal Benefits for Veterans and Dependents." Many veterans' service organizations have included articles about the Court in their periodicals. Indeed, the judges of the Court have accepted invitations to speak to veterans' service organizations around the country in an effort to increase public awareness of the Veterans' Judicial Review Act and the Court's role in its implementation. The Court recognizes a need for the public and the veteran community to be aware of its existence, and believes that such information is adequately supplied by the Board of Veterans' Appeals, the veterans' service organizations, and the speaking engagements of the judges.

QUESTION: How do you work with the veterans service organizations to ensure that the veterans know the Court is available and works.

ANSWER: See answer above.

QUESTION: You expect the caseload to reach 5,000 in calendar year 1992. Do you expect it to remain at that level or continue to increase steadily? If so, when do you expect it will level off?

ANSWER: The projection of 5,000 appeals per year was based upon the original estimate of appeals provided by VA. It is difficult to project with any accuracy the number of appeals the Court will receive until its caseload stabilizes. The number of appeals filed in 1990 increased at a relatively uniform rate. The Court is hesitant to anticipate when or if this increase will level off.

TRAVEL

QUESTION: You are spending $160,000 on travel and transportation in 1991. Did (or will) any of this go to reviewing cases outside of Washington, D.C? If so, how many cases did (or will) the Court review outside of Washington, D.C? How many requests did the Court receive to review cases outside of Washington, D.C.? What is the balance of travel funds going to in FY 1991?

ANSWER: The Court originally estimated $160,000 for travel in FY 1991. This amount included $84,000, or $12,000 per judge, for judicial visits to VA facilities and speaking engagements before veterans groups; $38,000 for oral arguments outside Washington, D.C.; $22,000 for non-judicial staff training; and $16,000 for judges' training.

In FY 1991 the Court will not spend the requested $38,000 to hold oral arguments outside Washington, D.C. The Court has received very few cases in which oral argument was warranted and in which the appellant's representative was located outside Washington, D.C. These few cases have been widely scattered geographically. In three cases in which the Court found oral argument necessary, the appellant's representative could not come to Washington. These cases were argued via telephone conference call. The Court needs more experience with this experiment with telephonic oral argument to determine its adequacy. As the number of cases needing oral argument increases, the Court will analyze the geographic dispersion and pattern of case filings and will be better able to predict its hearing-related travel needs.

The $38,000 originally requested for travel associated with oral arguments outside Washington has been earmarked to fund a third court security officer under the Court's contract with the U.S. Marshals Service during fiscal year 1991, as detailed in the Court's prepared statement on the FY 1992 budget. The FY 1992 total travel request has been reduced in consideration of the decrease in FY 1991 travel expenditures.

ADMISSIONS COMMITTEE

QUESTION: In 1991, $100,000 was appropriated to set up an Admissions Committee to ensure that attorneys and practitioners wishing to practice before the Court meet proficiency standards. What is the status of the Committee? Has the application and examination process been established? If not, when will it be? How many full-time equivalents (FTE) will be devoted to the Admissions Committee in FY 92?

ANSWER: The Admissions Committee was appointed in July 1990. The admission process had previously been established. The Committee has evaluated and provided recommendations concerning applications for admission to practice which have been referred to it by the Court. It has prepared a comprehensive recommendation related to the Court's rule on representation, which recommendation will be part of the Court's consideration of that rule. On a continuing basis, it has provided informal advice to the Clerk regarding his administration of the admissions program. The Committee has not yet been tasked with developing an examination for practitioners. During its review of the entire issue of representation between now and October 1, 1991, the Court will determine whether such a course of action is necessary or desirable. The Court anticipates that one FTE will be devoted to the admissions function in FY 1992 under the admissions process currently in effect.

JUDICIAL CONFERENCE

QUESTION: You plan to conduct a Judicial Conference in 1992 to provide the Court's judges and bar an opportunity to meet and discuss the salient issues facing the bar, the Court, and veterans seeking review. Please provide a breakdown of the requested $45,000.

ANSWER: The $45,000 requested was an extremely rough and tentative estimate based on anticipated facility and equipment rental, audiovisual support, printing of conference material, printing and mailing of invitations, related supplies, and possible speaker-related costs. If authorized by the Congress in legislation now pending, the Court hopes to have its first conference in spring 1992. It would be held in the immediate Washington, DC, area and, unlike other judicial conferences, would be open to attorney and non-attorney practitioners alike, as well as representatives from those veterans' service organizations who do not yet participate in the judicial appeal process. To attract a large number of participants, we would prefer not to charge a registration fee for this first conference. After the first such conference, we will be in a much better position to estimate future needs.

ADDITIONAL STAFF

QUESTION: You are requesting an increase of 18 staff (20%). Why are these staff necessary? Please provide a description of the positions to be filled and the associated costs.

ANSWER: This staffing increase is necessary to handle the docketing and processing of a caseload which is anticipated to increase by more than 40% with a large component of pro se cases. This estimate was prepared on the basis of 13 deputy clerk positions averaging GS-8/1 and five paralegal type positions averaging GS-11/1. However, the precise mix of attorney and paralegal positions on the Court staff is an evolving concept as the Court's experience increases. The Court will endeavor to manage its caseload in the most cost-effective manner possible and will keep the subcommittee advised of the personnel mix selected to best accomplish this goal. Based on the model described, associated costs would be $472,714 in direct salaries and $113,451 in related benefits, for a total of $586,165.

FURNITURE, FURNISHINGS, EQUIPMENT

QUESTION: How much has been spent on furnishings, furniture, and artwork in the 7 judges' chambers?

ANSWER: The total spent on furnishings, furniture and artwork in the 7 judges chambers is $295,288. Total expenditures for the judges chambers is well below the allowances recommended by the Administrative Office of the United States Courts for chambers of other newly appointed judges. Almost all funds to support the establishment of each judge's chambers were provided out of FY 1990 appropriations.

QUESTION: P. 11 of your budget indicates that in FY 91 you will be assessing the impact of new legislation on Court operations. What new legislation will impact the Court and what is the status of that analysis?

ANSWER: This statement indicates a continuing need for the Court to keep abreast of legislation affecting this Court directly and United States courts generally. H.R. 153, currently pending before the Court's authorizing committees, would amend title 38, United States Code, by making miscellaneous administrative and technical improvements in the Court's operation.

QUESTIONS SUBMITTED BY SENATOR GARN

QUESTION: In the Court's Fiscal Year 1991 Operating Plan, the Court indicated that the disproportionately high level of cases where there are unrepresented appellants adversely affects the Court's disposition rate. The Court planned to establish an Advisory Committee on Representation to assist the Court in reducing the level of self-represented cases. Has the Advisory Committee on Representation been established, and to what extent do unrepresented appellants remain a problem? Additionally, how does the $10 limit on a lawyers fee for appealing decisions regarding veterans benefits affect this issue?

ANSWER: The Advisory Committee on Representation was established in January 1991. Self-represented (pro se) veterans remain a severe problem for the Court. They are not familiar with the adversarial nature of the judicial appellate process or the time and filing requirements it imposes on them. They are not prepared to face the formidable professional opposition mounted on behalf of VA. These cases require disproportionately intensive review and scrutiny to bring some focus to appeals in which the materials submitted by unrepresented appellants are often intemperate, illegible, and wide-ranging. This seriously affects the time needed to decide cases and the staff resources needed to get them ready for decision.

The $10 fee limitation has been repealed and there is no specific limit placed on lawyers' fees for appealing a decision before this Court, although fee agreements are subject to review by the Court pursuant to 38 U.S.C. § 4063.

QUESTION: The Court also planned to evaluate the need for corrective legislation and submission of proposals to Congress. What changes does your Court anticipate proposing?

ANSWER: The significant needs which the Court has identified thus far are addressed in H.R. 153, which has passed the House and is now pending before the Senate Committee on Veterans' Affairs. This bill would amend title 38, United States Code, to make miscellaneous administrative and technical improvements in the Court's operation. Previously-identified concerns had been addressed in Pub. L. No. 101-94 and Pub. L. No. 101-237.

QUESTION: On page 14 of your budget submission, the Court states that it intends to continue its 5-year computer task plan to provide for the assessment, development, and enhancement of the Court's computer system. Furthermore, the Court states that this year it will install a case management system. I would like the computer task plan submitted for the record so we can monitor progress against the plan in the future. Is the Court currently on schedule?

ANSWER: A copy of the five-year task plan summary is attached. The five-year task plan allows the Court to use, on a multi-year basis, the vendor who was awarded the automation contract. The Court is currently on schedule. For FY 1991, the Court has defined three tasks: Task 1 involves the creation of a computerized case management system. This task is on schedule with the delivery of phase 1 in the next few months, and the delivery of phases 2 and 3 in late 1991. Task 2 involves the design and development of a computer network. The network is operational and is currently being tested. Task 3 involves the definition of the computer workstation needs of the Court. This task has been completed. For FY 1992 the Court has defined specific task needs which include automated annuities accounting and payment, automated quality assurance, automated image processing, and automated case inquiry systems.

QUESTION: The Court received funding for 60 positions in FY 1990, 87 positions in FY 1991, and this year is requesting an employment level of 105. While I understand that staffing is a function of caseload, at what level will the Court be adequately staffed? Do you anticipate an increase in staff in future years?

ANSWER: The Court has continued to work with VA's original caseload projection of 5,000 cases per year. Depending on whether and how the pro se problem is resolved, the request for funding to support an employment level of 105 in 1992 should provide an adequate staffing level to meet such a caseload. It is difficult to project with any assurance of accuracy the number of cases the Court will receive in future years until its caseload stabilizes.

FIVE YEAR COMPUTER TASK PLAN

SECTION C - DESCRIPTION/SPECIFICATION /WORK STATEMENT

C.1 STATEMENT OF WORK/SPECIFICATIONS (AGAR 452.210-71) (FEB 1988)

The Contractor shall furnish the necessary personnel, material, equipment, services and facilities (except as otherwise specified), to perform the Statement of Work/Specifications referenced in Section C and J.

C.2 ATTACHMENTS TO STATEMENT OF WORK/SPECIFICATIONS (AGAR 452.210-72) (FEB 1988)

The attachments to the Statement of Work/Specifications listed in Section J are hereby made part of this solicitation and any resultant contract.

STATEMENT OF WORK
FOR
SYSTEMS ENGINEERING AND TECHNICAL SERVICES

C.3 Introduction

The U.S. Court of Veterans Appeals (COVA) is a new government agency which is charged with monitoring the progress/status of veteran's appeals through the appelate process. COVA is in the process of constructing its computer hardware and software support architecture by installing a NOVELL based local area network (LAN) comprised of over 100 workstations and a suite of software subsystems (electronic mail, word processing, case tracking, etc.). The users of this network and its subsystems include judges, attorneys, and support staff associated with processing as many as 11,000 veteran's appeals cases per year.

COVA is seeking expert technical contractor support services in the area of Local Area Network (LAN) and Office Automation (OA). These services are to include the requirements definition, design, hardware and software analysis, market surveys, prototyping, testing, installation, and training. COVA has an on-going mission to identify and examine opportunities for improved productivity and/or reduced operational costs through automation. These Services will enable COVA to stay abreast of the constantly changing automation industry and to capitalize upon its promise of achieving increased efficiency and productivity.

C.4 Support Services

The Contractor shall support the design, development, and implementation of Local Area Networks and Office Automation systems throughout COVA. The Contractor shall also assist COVA in maintaining, updating, testing, installing, evaluating, and providing user training for Local Area Networks, Database Management Systems, Office Automation, Computer Hardware/Software and various software applications.

The Contractor shall furnish all the personnel and services to perform the following types of tasks:

C.4.1 Office Automation

The Contractor shall be required to provide detailed functional requirements analysis, develop detailed hardware, software, and communications specifications, perform cost benefit analyses, develop prototypes, and implement and evaluate office automation solutions throughout the COVA community. The Contractor shall also be responsible for assisting COVA in all installation, testing, and user support for office automation systems throughout COVA. This task also includes providing technical research for upgrade considerations and their implementation, if so required.

C.4.2 Local Area Networks (LANs)

The Contractor shall perform LAN planning requirements definition analyses, development of hardware and software evaluations, detailed design specifications, monitor or provide LAN installation, develop plans and/or conduct acceptance testing, upgrade analyses, and provide user support and LAN maintenance for the COVA community.

C.4.3 Network and Computer Support

The Contractor shall assist COVA in network management, cabling, training, documentation, installation, and trouble shooting for LAN and OA users throughout COVA. Anticipated services will be in the areas of microcomputer installation, set-up, training and problem diagnosis and resolution. When required, the Contractor shall assist the user with acquisition planning for hardware, software, and communications equipment in relationship to their automation requirements. Services will include the following function, either on-site at COVA facilities or at CRM facilities as required.

C.4. 3.1 Computer hardware and software problem diagnosis, simple repairs, and referral to COVA staff when repair vendors must be brought in for more complex repairs.

C.4. 3.2 Applications software problem resolution: assisting users with questions about unfamiliar or infrequently used functions of standard packages including, but not limited to, Lotus 1-2-3, dBaseIII Plus, Samna, WordPerfect, Multimate, Multimate Advantage, Framework, 3Com-3Plus, Wordstar, Novell Net and Symphony in integrated environments: Providing help when problems arise, and advising users on appropriate use of software and appropriate standard software for specific tasks.

C.4. 3.3 Provide on-site assistance to COVA end-users and support staff for installation, set-up, configuration, and testing of new or upgraded computer systems, hardware and software, and peripheral equipment.

C.4. 3.4 Answer questions of COVA users seeking information on tools and techniques to take advantage of office automation technology in specific recommending software from among standard alternatives; assisting in devising applications; and helping users to determine the scale and scope of applications, whether they are suitable for implementation on microcomputers, or require larger scale hardware.

C.4.3.5 Provide support, as needed, on other aspects of the office automation, local area networks and optical disc technology. Support may include items such as studies, network design and technical evaluations.

C.4.4 System Application Development

The Contractor shall perform the necessary activities to design, develop, or maintain LAN Management and/or application systems, using off the shelf software or customized application software. This involves performing requirements analysis, system design, system implementation, providing technical assistance, training, and develop or maintain required documentation. All software/development Tasks will follow Standard Development Life Cycle (SDLC) procedures, as, appropriate.

C.4.5 Hardware and Software Acquisition and Integration

The Contractor shall furnish the appropriate file servers, workstations, peripherals, and software as required by COVA to meet their automation needs. The Contractor shall install, integrate and maintain the COVA data system. This includes system design, cost benefit analysis, system upgrades, testing, system evaluation and providing user training as required.

C.5 Task Orders and Task Planning

Within ten (10) working days of receipt of each Task Order Request, the Contractor shall submit a proposal to the Contracting Officer, which shall include the Contractor's work plan, estimates of manpower, estimated labor costs, estimated other direct costs, delivery dates and deliverables. In preparing the proposal, the Contractor shall give the fullest consideration practicable to the availability of resources and personnel required and the establishment of priorities of work. Work under such Task Orders shall not commence until the Task Order is issued by the Contracting Officer.

C.6 Ordering of Tasks

Each Task Order shall:

1. Be issued identifying the statement of work, Period of Performance, personnel requirements, other direct items, and deliverables;
2. be identified by number in sequence;
3. specify that it is pursuant to this contract;
4. set forth requirements and quantities for the supplies or services being ordered:
5. set forth the fixed price and fee of the negotiated Task;
6. set forth the negotiated delivery or performance dates;
7. be signed by the Contractor and the Contracting Officer.

C.7 Reporting Requirements

Contract deliverables will be set forth in each Task Order as issued. The Contractor shall submit monthly progress and financial reports for each Task Order, describing achievements, problems, and current and year to date expenditures during the reporting period to sufficiently inform COVA on Contractor performance and status.

C.8 Period of Performance

The period of performance for this contract shall be from date of award through September 30,1900 with five option periods.

C.9 Place of Delivery

All deliverables shall be delivered to the U.S. Court of Veterans Appeals, attention Contracting Officer Representative.

C.10 Contract Type

This contract is a Task Order. Indefinite Delivery/Indefinite Quantities (ID/IQ), Firm Fixed Price type of contract. Labor rates shall be all inclusive, in that they shall include direct labor, overhead, G & A, and profit.

C.11 Labor Categories and Estimated Hours

Labor categories required to meet the support needs of COVA are:

	Years Experience	Estimated Onsite Hrs (Hrs per yr)	Estimated Offsite Hrs
Project Director	8	----	480
Senior Networks Consultant	9	----	240
Senior Systems Analyst/Programmer	7	1855	960
Systems Analyst/Programmer	6	----	960
Documentation Specialist	2	----	480
Clerical	N/A	----	960

SECTION C - DESCRIPTION/SPECIFICATION /WORK STATEMENT

C.12 SCENARIO OF EVENTS

(a) The user requesting services submits the request to the Contracting Officer's Representative (COR) on this contract. It incorporates a Statement of Work describing the work to be performed by the Contractor.

(b) The Statement of Work is given to the Contracting Officer (CO) and the CO issues a Task Request/Order to the Contractor, requesting a Task Proposal.

(c) The Contractor prepares the Task Proposal and delivers it to the CO and two copies to the COR.

(d) The Task Proposal is reviewed by all parties (i.e., the CO, COR) and a necessary determination is made as to whether or not negotiations with the Contractor are necessary.

(e) After any necessary negotiations, a delivery order is issued to the Contractor.
In the event agreement cannot be reached on price the CO may render a unilateral decision and the Contractor may submit a claim in accordance with the Disputes clause of the contract.

(f) The Contractor performs the task in accordance with the delivery order and delivers the required deliverables to the COR.

(g) The deliverable(s) is/are delivered, accepted by the COR.

(h) The Contractor sends an invoice reflecting the performance of the task to the COR.

(i) The COR approves the invoice for payment.

(j) The Contractor is paid by the Government.

C.13 LOCAL SUPPORT

The Contractor shall maintain one local office which is physically located within 50 miles of the U.S. Court of Veterans Appeals, 1625 K Street, N.W., Washington, D.C. 20006.

C.14 Movement of Equipment

C.14.1 In the event the system(s) being maintained under the terms and conditions of this contract is moved to another location within the same geographical service area, as designated by the Contractor, the terms and conditions of this contract shall continue to apply. If the system(s) must be moved outside the Contractor's designated service area, then the continued applicability of this contract shall be subject to mutual agreement.

C.14.2 The Government shall give at least sixty (60) days written notice to the Contractor of its intention to move the equipment, except in emergencies.

C.14.3 Shipment to the new installation site shall be at the Government's expense by electronic padded van or air freight. The Government may ship the equipment by Government transportation or by commercial carrier, or, at its option, provide the Contractor with an authorization to ship by commercial carrier on a prepaid basis, in which case the Government shall be invoiced for transportation, rigging, and drayage costs.

SUBCOMMITTEE RECESS

Senator **Mikulski**. This concludes today's hearing, and the subcommittee will stand in recess until April 23, when we will be hearing from the various educations related to science and science education funding.

[Whereupon, at 3:44 p.m., Wednesday, April 17, the subcommittee was recessed, to reconvene at 9:30 a.m., Tuesday, April 23.]

DEPARTMENTS OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT AND INDEPENDENT AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1992

WEDNESDAY, APRIL 24, 1991

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:07 a.m., in room SD–124, Dirksen Senate Office Building, Hon. Barbara A. Mikulski (chair) presiding.

Present: Senators Mikulski, Kerrey, and D'Amato.

EXECUTIVE OFFICE OF THE PRESIDENT

OFFICE OF SCIENCE AND TECHNOLOGY POLICY

STATEMENT OF D. ALLAN BROMLEY, DIRECTOR

OPENING STATEMENT OF SENATOR MIKULSKI

Senator MIKULSKI. The subcommittee will please come to order.

Today we will hear testimony from the Office of Science and Technology Policy and the National Science Foundation on their requests for 1992 appropriations.

The President's high priority on science and technology is clearly demonstrated by a substantial budget increase requested in these areas. While we are supportive of the President and would like to meet his request, as he said in his inaugural, our will and our wallet do not exactly match. So, today we have the will and now we are looking for the wallet. In today's hearing we want to focus on what are the priorities and, essentially, how we can get the most bang for our buck.

We would like to welcome first Dr. Bromley, the President's Science Adviser. Under Dr. Bromley's leadership, the Office of Science and Technology Policy has assumed a central role in advising the President in working to coordinate the various administrative agencies in very special new initiatives, particularly through the FCCSET committees. Dr. Bromley was here yesterday to discuss one of them, the President's initiative on math and science education, as well as the initiatives of this subcommittee.

The Office is focusing on a budget of $3.9 million for 1992. It is a 9-percent increase, or $320,000, over last year.

Dr. Bromley, we would like to welcome you and look forward to hearing your testimony.

Senator MIKULSKI. Senator D'Amato, did you want to say a few words before you once again leave for the Banking Committee? [Laughter.]

Senator D'AMATO. Madam Chairman, first of all, let me commend you on your opening statement. I enjoyed it immensely, especially the part about matching the dollars.

I am sorry, and I make my apologies to the committee and those who are here that I do have the Banking Committee which is holding a hearing simultaneously. So, I would like to just submit my statement for the record and some questions for the record.

Senator MIKULSKI. Without objection, so ordered.

[The statement follows:]

STATEMENT OF SENATOR D'AMATO

Madam Chair, I am pleased to join you this morning to review the FY92 budget requests of the Office of Science and Technology Policy and the National Science Foundation.

I am especially pleased to welcome our witnesses, Dr. Bromley and Dr. Massey. Their agencies play a critical role in promoting sound federal investments in research and development—investments necessary for our nation's continued intellectual and economic vitality.

I note that both OSTP and NSF are requesting substantial increases in fiscal year 1992. OSTP's request of $3,880,000 represents an increase of just under 9 percent over last year. NSF's request of $2.7 billion is an increase of $400 million—or 17.5 percent—over last year.

While these new investments may seem significant, they remain crucial to maintaining our nation's lead in basic research and graduate education. In these areas, we cannot afford to underinvest.

Thank you, Madam Chair.

Senator MIKULSKI. We will look forward to seeing you again. [Laughter.]

Dr. Bromley, why don't you just move into your testimony? I know it is quite comprehensive, so we will accept the testimony in totality for the record, and please feel free to summarize and give those priorities. You were very generous with your time yesterday, and we want to move with a quick pace today.

SUMMARY STATEMENT OF DR. BROMLEY

Dr. BROMLEY. Thank you, Madam Chair. I welcome this opportunity to appear before you to continue our discussion of science and technology policy. What I would like to do is to briefly summarize the formal testimony that you already have and to discuss some of the activities and operations of my office during this past year, as well as our budget request for fiscal year 1992.

ADMINISTRATION'S R&D PROPOSALS

In continuing an approach adopted in previous budgets, as you yourself just noted, President Bush gave research and development special emphasis in fiscal year 1992, and this is a reflection of the administration's overall emphasis on investing in our national future. Like spending on education, preventative health care, and our national infrastructure, investments in research and development can be expected to return benefits many times over the investment that we make.

A great deal, as you know, Madam Chair, has been said and written in recent years about our declining international economic competitiveness and a diminished role for the United States in the world in general. In my opinion, a substantial amount of this has been overdone. I don't mean to gloss over our real problems and the need to address them vigorously, but I remain an optimist and a deep believer in the fundamental strengths and values of our Nation. From my perspective, both as a scientist and as a member of the Bush administration, I see opportunities before us as more extensive and more promising than at any time before in our history.

In support of the broad theme of investing in the future, the fiscal year 1992 budget proposes to invest $75.6 billion for research and development, including R&D facilities. That represents an increase of 13 percent over the amount that the Congress appropriated for fiscal year 1991. Civilian R&D would go up 9.5 percent; defense-related R&D would rise 14.5 percent; funding for basic research, 8 percent; and support for R&D facilities would rise 15 percent. I do not want to take the time to go into any of the details here. All of them are summarized in the written testimony that I have provided to the committee.

ACTIVITIES OF OSTP

Turning to the activities of my Office during this past year, we have been involved in varying degrees of intensity in virtually every area of science and technology policy. I believe that as a consequence our science and technology policy is now stronger, more cohesive, and more forward looking than it was when we talked about these topics a year ago. A comprehensive document entitled "Summary of Accomplishments: Fiscal Year 1990" is enclosed as part of our budget justification to describe the activities and accomplishments of my Office in detail.

I also want, Madam Chair, to call attention to two organizational issues that have already had a very important impact and will have a much more important impact in the future on Federal science and technology policy.

One has been the reorganization and revitalization of the Federal Coordinating Council [FCCSET]. This was started just a little over a year ago. The members of FCCSET, as you know, are now the Cabinet Secretaries and Deputy Secretaries and the heads of the independent agencies that have any significant amount of R&D in their mission mandates.

In turn, FCCSET has formed seven umbrella committees with jurisdiction spanning the broad range of science and technology. Out of these activities came three of the major Presidential initiatives in the 1992 budget, as you discussed: one on education in mathematics and science, one on global change, and one on high-performance computing and communication. I might say, Madam Chair, that we now have agreed that in this coming year one on materials science and technology will be added, as will one on biotechnology. These are two areas that I believe can benefit substantially from the broad crosscutting review that the Council can give them.

The second major organizational innovation is the establishment by the President of his Council of Advisers on Science and Technology. This is a group of 12 very distinguished private-sector citizens. The Council was formed in February 1990, and PCAST has been meeting on a monthly basis as a plenary committee since that time. On each occasion when the President has been in Washington, he has spent part of the meeting with the group in active and, I think, very productive discussion.

PCAST offers the possibility of bringing in the private-sector calibration and validation that is terribly important for the activities of FCCSET and, indeed, of all of our interagency activities where the members are, by law, Federal employees. Currently PCAST has just completed the formation of seven panels. This will mean that, in this coming year, much of PCAST's activities will take place through these panels, as well as through the plenary activities.

PREPARATION OF REQUESTED REPORTS

I would turn then, Madam Chair, to the reports that you requested a year ago. In your Senate Report 101–474 of last year, you outlined a list of 11 studies and reports that you asked us to undertake. We have worked assiduously on this and I am happy to be able to report to you that of the 11 that you have requested, 8 have now been submitted to you, 2 are in the final stages of clearance by OMB, and 1, that on the details of the establishment of our Critical Technology Institute, is in final stages. We are holding it up because we want to be able to give you the details and personnel and that we should do in the near future. We have responded to these requests, we hope, in a satisfactory fashion.

I am pleased to say that the report that we provided to you on the rationalization of our relationships and shared responsibilities with the Council on Environmental Quality was delivered to you earlier in the year and we have been working actively to improve the coordination and cooperation between our two agencies.

A report listing civilian R&D sectors by priority and identifying the 20 top science projects in the country has also been delivered to you.

A report that documents how the administration expects to be first in the world in science and math education by the year 2000 and that develops a multilevel priority-setting framework that will focus, integrate, and when necessary, reassign agency roles in science and mathematics, is completed, and we discussed that with you yesterday.

A report to review and respond to the National Academy of Sciences' report on the U.S. Global Change Research Program was also delivered to you earlier this year. Another describing the establishment of education offices in each of the Federal agencies with R&D activities and coordinating interagency activities toward developing laboratory-education partnerships was delivered to you earlier this week. And as I mentioned to you yesterday, an executive order is working its way through the system that will formally add education to the mission statement for all of these agencies.

I have also this morning, Madam Chair, provided you with a copy of a new document describing the Decade of the Brain. This report was requested as a followup to the President's proclamation last July—following an initiative of Representative Silvio Conte—that the 1990's be designated as the Decade of the Brain. We were asked in OSTP to coordinate and develop a program for moving that integrated national program forward and I am happy to present you with a copy of this program document, which I will release later today at a meeting of the American Academy of Neurology in Boston. It is a sample of the other kinds of reports on which we have been engaged beyond the ones that you have requested.

BUDGET REQUEST

Turning now to our budget request, in fiscal year 1990, based on your understanding of the many new demands that we were facing and the increased scope of our responsibilities, we expanded both in budget and in staff. A limited number of new staff has been added and we are currently in the final stages of staffing to our authorized budget levels.

The total 1992 budget request of $3.88 billion for the Office of Science and Technology Policy is intended to support 38 full-time permanent staff for OSTP, 3 staff members for the President's Council of Advisers on Science and Technology, and 2 other full-time equivalent personnel. To better fulfill our mandate, OSTP is working to stabilize the work force of professionals and support staff at our approved ceilings.

The request, as you, Madam Chair, noted, is $320,000 more than that appropriated in 1991, an increase of just under 9 percent. I would report to you that the largest component of this increase stems from mandated pay increases; that is, $137,000. The second largest is from the buildup of the President's Council of Advisers to a reasonable operating level compatible with the President's interests and demands; that amounts to $83,000. The other large item was an uncontrollable increase in our rent charged by the GSA, $56,000. Roughly another $53,000 comes from increases in utility charges, and the additional service costs are for computers and other equipment.

The request that we have made to you is a lean one. It makes it possible, in addition to the four Associate Directors in my Office who are in place for the first time, to provide for six Assistant Directors and a number of policy analysts in key areas. I am also able to report to you that I have acted on a promise that I made to you a year ago, and we now have aboard an Assistant Director with responsibility for the social and behavioral sciences, Dr. Pierre Perrolle, who is a very distinguished member of that community. This adds a dimension that I think is very important to our activities.

Our budget continues to assume a moderate use of detailees. I must say that I have been exceptionally pleased with the quality of the people who joined me at OSTP. The reports, the documents, the FCCSET activities that we have accomplished are a testament to their hard work and creativity, and I am extremely proud of all of them.

As we move into a more stable organizational mode and no longer face the problems of integrating significant numbers of new people, the Office is going to be turning its attention more and more to fine tuning our agenda in terms of priority setting. This is a question that you have raised quite properly, Madam Chair, and we will be able to do that because we will need less time devoted to institution building and less time to bridge building, an activity which I felt was enormously important in the first part of my service here.

I would be less than grateful if I did not directly acknowledge to you, Madam Chair, the generous action of this subcommittee and your own personal help in agreeing to an increase for PCAST in our 1991 budget. I want to underscore that I have carefully reviewed the budget that we have submitted to you this year to ensure that it is prudent. We are going to manage the budget as tightly as possible with the assistance of the Financial Management Office of the Office of Administration in the President's Executive Office.

Given the large workload that we expect for 1992 and beyond, the requested level of support is, nevertheless, in keeping with current budgetary constraints. The request, in my opinion, represents a judicious application of resources to meet varying and diverse needs and I believe that it will allow us to continue to have a significant impact on science and technology policy coordination.

U.S. UNDERINVESTMENT IN SCIENCE AND TECHNOLOGY

Finally, Madam Chair, let me conclude by saying that throughout the year I have said on a number of occasions, as have you, that we in the United States are still underinvesting significantly in research and development. It is a belief that it is widely shared in the administration, and I know that it is widely shared here on Capitol Hill.

The administration's proposed 1992 budget for research and development continues to take steps to address this underinvestment. In addition, it provides for a strong advisory oversight and coordinating function through its support of OSTP. I would like to urge you, Madam Chair, and your colleagues to support these proposals, and we on our part will give you our firm promise that we will work closely with you over the coming months to achieve the goals that I believe we both share.

Thank you, Madam Chair.

[The statement follows:]

STATEMENT OF D. ALLAN BROMLEY

Madam Chair and members of the subcommittee, it is a great pleasure to once again appear before you, as Director of the Office of Science and Technology Policy, to present testimony and answer your questions on the Administration's proposed Fiscal Year 1992 budget for research and development as well as the Administration's science and technology policies. I will also discuss the operations and accomplishments of my office during the past year and present our budget request for Fiscal Year 1992.

In continuing an approach adopted in the first budget submitted to the Congress by President Bush, research and development are given special emphasis in the fiscal year 1992 budget request. This is a reflection of the Administration's overall emphasis on investing in the future. Like spending on education, preventive health care, and our national infrastructure, our investments in research and development can he expected to return benefits many times over the expenditures.

These benefits can he measured not only in economic terms but in terms of enhanced national security, improved environmental quality, expanded intellectual and cultural vitality, and a widening international influence of our central political and social principles. It is no coincidence, I believe, that freedom of inquiry and expression, which are bedrock principles of both our political and scientific systems, are rapidly gaining strength around the world. Spurred on by the vastly increased communication capabilities made possible by technological advances—primarily initiated here a dramatic shift in world outlook is occurring in what is a relatively short period of time in history.

While much has been said and written in recent years about our declining international economic competitiveness and a diminished role for the United States in the world, much of this has been overdone. I do not mean to gloss over real problems and the need to address them vigorously, but I remain an optimist and a deep believer in the fundamental strengths and values of this nation. From my own perspective as a scientist as well as an official of the Bush Administration, I see the opportunities before us as virtually boundless.

The essence of the collective decision that you in the Congress, we in the Administration, and the American people face is one of choice: whether or not to grasp these opportunities in defining and developing our role in what the President has called a "new world order." In the midst of rapid worldwide change, it is especially important to look beyond the present day and current problems to the potential for the future. As we approach the important psychological milestones of a new century and a new millennium, I see the decade of the 1990s as a precursor to a vast national and worldwide vigor and growth in the Twenty-First Century. And I fervently believe that science and technology will continue to play powerful and influential roles in these unfolding events.

In support of this broad theme, the President's fiscal year 1992 budget proposes to invest $75.6 billion for research and development, including R&D facilities, an increase of 13 percent over the amount Congress appropriated for FY 1991. Civilian R&D would go up 9.5 percent, to $28.8 billion; defense-related R&D would rise 14.5 percent, to $43.3 billion. Funding for basic research is slated for an 8 percent increase, to over $13 billion; support for R&D facilities would rise 15 percent, to over $3.5 billion.

I will return to specific budget highlights and initiatives shortly. But first I would like to spell out important objectives of the Administration related to science and technology and identify several criteria or policy rationales for investing in R&D in support of these objectives.

BROAD ADMINISTRATION GOALS AND POLICY RATIONALES RELATED TO SCIENCE AND TECHNOLOGY

A wide range of programs, activities, and organizational measures are included in the FY 1992 Budget. In general, these measures support the following objectives:

Ensuring that the United States continues to lead the world in science and technology; maintaining and enhancing the domestic science and technology base; as part of the science and technology base, ensuring excellence in science and mathematics education at all levels; applying science and technology to the resolution of domestic social concerns; encouraging and supporting the application of science and technology in enhancing economic growth in the United States; enhancing national security through a strong capability for national defense; and promoting increased international understanding through scientific cooperation and exchanges.

While each of you has a long familiarity with the arguments for federal support of research and development and this subcommittee has a decades-long track record of being in the congressional vanguard of supporting research and development, I would like to take a few minutes to review with you the basic policy rationales that were used to develop the FY 1992 budget in support of the above objectives. These rationales can be divided into four broad and partially overlapping categories: (1) investing for the future, (2) meeting national needs, (3) exploring intellectual, social, and physical frontiers, and (4) building on the fundamentally international character of science and technology.

INVESTING FOR THE FUTURE

In the first category, that of investing in the future, it has long been known that spending on research and development has a very high rate of return. Economists estimate that more than one third of the growth of the U.S. economy since 1930 has been due to research and development. Evidence from the past four decades suggests that industry-financed R&D alone accounts for about one third of the annual average growth of productivity over that period.

Besides fostering economic growth, science and technology have helped to improve the quality of our lives. New vaccines and treatments for disease, greatly enhanced mobility, a wider range of foods and other products, improved accommodations, and new forms of recreation and entertainment have all made our lives more comfortable and more fulfilling.

The return from research—particularly the basic research done largely at colleges and universities—is not easy to quantify, but an initial attempt has been made by the distinguished economist Edwin Mansfield of the University of Pennsylvania. Looking specifically at academic research, he found an average social rate of return to past investments in R&D of 28 percent. Others have estimated rates of return from all R&D expenditures—that is, basic and applied research and development ranging from 20 to 200 percent. In comparison, companies normally expect to receive returns on the order of 10 percent from investments in other areas such as plant and equipment.

Examples of research and development that lay the groundwork for future advances in both the public and private sectors can be found in many areas—in agriculture, space science, economics, mathematics, biology, psychology, chemistry, engineering, earth science, physics—indeed, throughout all of science and technology. However, returns from R&D—and particularly basic research—are not instantaneous. Depending on the type of research and the field in which it is done, the payoff may not come for many years. This time lag underscores the importance of R&D as an investment in the future, wherein a lack of investment now may result in diminished productivity in the next generation. Furthermore, these shortfalls cannot be instantaneously reversed by spending when the problem is noticed. It is our vigilance now that will make future technological growth possible.

MEETING NATIONAL NEEDS

Another criterion applied to proposed programs in science and technology is whether they meet a pressing national need of immediate importance. The President's FY 1992 budget provides continued and, where appropriate, increased support for a broad range of federal R&D activities that address identified needs in areas such as energy, the environment, national defense, advanced technology, health, and education.

Many kinds of research and development are required to meet these needs. As an example, I might cite the U.S. Global Change Research Program, which has been organized by the Committee on Earth and Environmental Sciences under the Federal Coordinating Council for Science, Engineering, and Technology (FCCSET). The budget requests a total of almost $1.2 billion for this program, an increase of 24 percent or $232 million. This amount will virtually double the size of the program since it was started in FY 1990. Much of this work is basic research designed to document, understand, and predict the functioning of the Earth system on a global scale, yet it still meets an immediate and pressing need: that of producing the scientific knowledge that world leaders and the general public need to address such issues as global climate change and ozone depletion.

Another example of civilian R&D that meets important national needs can be found in the initiative in high performance computing and communications proposed in this year's budget. This initiative is based on a program put together under another FCCSET committee, the Committee on Physical, Mathematical, and Engineering Sciences. The program is organized around a number of "grand challenges"—critical unsolved problems that can be addressed through the power of high performance computing. Furthermore, the provision in the initiative of a nationwide research and education network is designed to greatly increase the number of individuals with access to high performance computing and communications, including students throughout the country and at all educational levels.

National security is another example I might cite of a national need requiring both basic and applied research. The superiority of the current generation of U.S. military systems, as dramatically demonstrated by the Desert Storm campaign, is a direct result of decisions made in years past to harness American technical creativity in the development of military systems of unparalleled performance and quality. Costly though some of these systems were, they have been responsible for saving the lives of Americans, our allies, and our adversaries. As the United States enters the 1990s, the strength of our R&D in defense technologics must be sustained.

Finally, as I described to you in the hearing yesterday, a particularly critical national need in the United States today is the need to reform and revitalize education, particularly at the precollege level and particularly in mathematics and science. The nation is now recognizing the gravity of the problems affecting precollege education in science and mathematics. Within the federal government, a groundbreaking interagency effort under FCCSEPs Committee on Education and Human Resources has been working to maximize the effectiveness of the federal contribution to science and mathematics education. I shall return to this effort below.

EXPLORING INTELLECTUAL, SOCIAL, AND PHYSICAL FRONTIERS

By emphasizing the economic and social returns of R&D, I do not mean to imply that all research must have an immediately discernible payoff. We are by nature a curious and inquisitive species, and great nations thrive by fostering these basic human drives. When nations pull back from the frontiers—intellectual or physical—they tend to decline. If we are to prepare for what the President has called "the next American century," we must continue to pursue the frontiers, as we have throughout this nation's history.

Few frontiers have ever been as dynamic and as full of promise as science is today. The number of opportunities in science is unparalleled, partially because past funding for research and development has opened up a wide variety of new areas of inquiry.

For the past several centuries, the quest for scientific understanding has been one of the greatest adventures available to mankind. It is an adventure that has fundamentally changed our view of the world around us, and it will continue to do so in the future.

I would also emphasize the role of the social and behavioral sciences in this enterprise. The quest for new knowledge has altered our understanding of ourselves and of how we, as human beings, function in social and organizational contexts. The study of human behavior and social organization is as much a part of the grand adventure of science as are investigations in physics, chemistry, biology, geology, and astronomy.

The challenge of exploring new frontiers is also one justification for human expansion into space. Our standing as a world leader will continue to be measured, in part, through the commitment we make to exploring the space frontier. In addition, space exploration provides more tangible benefits in the form of new products and processes for industry and government, a stronger scientific and technological base, and a focus of attention for scientists and nonscientists alike.

Over the past year, the U.S. space program has been undergoing an intensive and very healthy review, and as a result the program is undergoing important changes. These changes, to which I shall return later, can be expected to produce a greatly strengthened space program.

BUILDING ON THE FUNDAMENTALLY INTERNATIONAL CHARACTER OF SCIENCE AND TECHNOLOGY

Scientific and technological research, whether funded directly by the government or by private industry or institutions, has always been among the most international of human activities. Science transcends national boundaries even when political differences restrict exchanges in other areas.

Because of the growing importance of science and technology and its transnational nature, the United States has been presented with a tremendous opportunity to better integrate science and technology into our foreign policy objectives around the world. Areas of particular promise and challenge include global environment change, large projects in the basic sciences, and the growth, use, and management of information and information technologies. Coordinating our planning and support of work in these areas with the activities of other countries is essential.

HIGHLIGHTS OF THE BUDGET

Having established some of the criteria applied in judging science programs, let me describe some of the areas of emphasis in the FY 1992 R&D budget and some of the issues that arise in considering the nature of that support.

BASIC RESEARCH

The first area of emphasis in the budget is basic research. Basic research accounts for only about 15 percent of the total spent on all research and development done in the United States. But basic research—and particularly the large fraction of basic research done in universities and colleges—is an indispensable part of the nation's R&D enterprise. Indeed, it is the wellspring from which new knowledge and technical advances flow.

The federal government now supports more principal investigators at universities than ever before, reflecting real increases in the level of federal support for academic research. However, the number of such researchers competing for funds has increased even faster, which is largely a result of the emergence of exciting new scientific opportunities and of our past successes in training high-quality doctoral-level scientists and engineers. There has also been pressure to increase the size of such individual investigator grants—reflecting the increased complexity of science (sophistication inflation)—and to extend the duration of grants—to promote stability of support and to reduce the fraction of researchers' time and effort devoted to paperwork rather than research. Both of these changes increase out-year mortgages. Such factors have caused the competition for available research funds at agencies such as the National Science Foundation and the National Institutes of Health to become so great that the situation has become a matter of serious concern in the research community.

Recognizing the many essential contributions of basic research, especially at universities, to our national future, the FY 1992 budget proposes actions in several federal agencies designed to strengthen the individual and small group investigator component of the scientific enterprise. At the National Science Foundation, the President has reiterated his commitment to double the NSF's budget between 1988 and 1994. The budget proposes an 18 percent increase—over $400 million—for NSF, bringing it to a total of $2.72 billion. Support for the conduct of research, almost all of which is basic research in NSF, will increase by $284 million, or 16 percent, to a total of $2.1 billion. I sincerely hope that, this year, Congress will be able to sustain these increases, especially given that in recent years appropriations for research activities at NSF have fallen short of the increases needed.

In addition, the budget proposes a crucial $50 million initiative at NSF—matched at least 50:50 by nonfederal funds—to improve the research infrastructure by providing state-of-the-art instrumentation to university researchers. As with research funding, support for this instrumentation will be distributed on the basis of a competitive, merit-reviewed process.

At the National Institutes of Health, the President has proposed an increase of $334 million for basic research, or 7 percent, to a total of about $5 billion. Total funding for NIH would go up 6 percent to about $8.8 billion, and total funding for R&D within the Department of Health and Human Services would also rise 6 percent to a total of about $10 billion. These amounts would allow for an increase of 9 percent in NIH's funding for research project grants awarded to individual investigators, providing for a broad base of fundamental advances. In addition, within the NIH total, $110 million is allocated to the Human Genome Program, with an additional $59 million in funding from the Department of Energy, resulting in an overall increase for the program of 26 percent.

Together, NSF and NIH support over half of the federally funded basic research done in the United States, and over 75 percent of the federally funded basic research done in universities. By focusing special attention on these agencies, the Administration plans to strengthen the individual investigator and small group research that remains the heart and backbone of American science and technology.

In other agencies, the budget calls for the Department of Energy to fund $1.76 billion of basic research into biological, environmental, and basic energy science and into nuclear and high energy physics. Funding for the Superconducting Super Collider is set at $534 million for FY 1992. This total is $291 million above the amount appropriated in FY 1991 and will allow the SSC to proceed on schedule.

At the Department of Agriculture, the National Research Initiative, which is a merit-based competitive research grants program open to investigators across the nation, is proposed to increase by 71 percent, to $125 million. This program will broaden the nation's science and technology base through research in such areas as food safety, water quality, global change, pest management, and farm income. In addition, the budget proposes a $25 million facilities program at USDA necessary to support the National Research Initiative.

Finally, science research in the National Aeronautics and Space Administration is slated to rise by $262 million—to a total of $1.96 billion—largely reflecting increases in space and environmental science. These funds will support an exciting program of ongoing investigations, including studies using the Hubble Space Telescope, the Gamma Ray Observatory to be launched later this spring, and continued construction of the CRAF/Cassini probes and the Advanced X-Ray Astronomy Facility.

RESEARCH INFRASTRUCTURE

One important consideration in the ability of universities to perform research efficiently and effectively is the adequacy of their research facilities and equipment. To sustain a strong national research capability and to expand the nation's research capacity, the R&D infrastructure must be maintained and replenished.

Since federal procedures were established for the support of R&D following World War II, the overwhelming majority of federal funds for research at universities has been allocated on the basis of excellence, as determined by a competitive process of peer review. This approach serves to maximize the potential return on these investments by selecting only the highest quality research for support. Even programs that are more directed, such as the Experimental Program to Stimulate Competitive Research (EPSCoR), which is designed to bring geographically diverse research efforts to nationally competitive levels, are focused on excellence in that scientific merit remains a primary criterion for selection among eligible projects.

In recent years, the focus on excellence has been increasingly threatened by the practice of Congressional earmarking of funds for specific projects. According to an analysis of the FY 1991 budget conducted within my office, about $427 million was appropriated for such projects at universities in 1991. Earmarked projects typically do not undergo merit review, and thus their potential for contributing to scientific advance is often unknown. In the present era of tight budgets and spending caps, earmarking has the effect of substituting projects of unknown scientific merit for ones that have had careful examination of their scientific merits and thus threatens to weaken the nation's R&D effort.

The budget sent to Capitol Hill each year for research and development represents the Administration's best judgment as to the proper balance in using scarce resources. Earmarking distorts this balance. The Administration looks forward to working with you on ways to reduce the perceived need for earmarking.

TECHNOLOGY DEVELOPMENT

Applied research and development activities funded by the federal government fall into several broad categories. One category is applied R&D that supports agency missions in such areas as national security, health, energy, and space. Another is applied R&D aimed at generic or enabling technologies that have many applications in the public and private sectors. Because of the many benefits to be gained by supporting this work the budget provides increased funding for major areas of applied research and development.

Many issues related to federal support for technology development are discussed in the publication "U.S. Technology Policy" released last September by OSTP. This document lays out the many ways in which the federal government influences technology development and, more broadly, economic competitiveness. It deals with the strength of the science and technology base, education and training, technology transfer, private sector incentives, and federal-state activities. Most important, it provides a baseline for future dialogue and discussion of technology issues, both inside and outside of the government.

An excellent example of technology development in the FY 1992 budget is the Presidential initiative in high performance computing and communications that I mentioned earlier. The President has proposed an increase of $149 million or 30 percent—to a total of $638 million—for an interagency effort designed to extend U.S. leadership in all advanced areas of high performance computing and networking.

Part of this program consists of basic research at the nation's universities designed to develop the hardware, software, networks, and human resources needed to ensure American leadership in all advanced areas of computing and networking. An additional and very important component of the program consists of applied research and development of technologies that will form the basis for tomorrow's computer and communications industries.

Another important example of federal applied research and technology development—particularly given the events of the past few weeks and months—is targeted high-payoff energy technologies. Guided by the National Energy Strategy, the budget proposes a major initiative to develop technologies that could increase the efficiency of energy use, provide alternatives to petroleum, and advance new electricity technologies. About $900 million—an increase of 34 percent in the targeted areas—is proposed for this work

In the area of advanced manufacturing and materials, the budget proposes to invest about $1.3 billion, including over $1 billion for research and development on advanced manufacturing technologies. About half of this manufacturing R&D supports the procurement needs of government programs, but the other half is focused specifically on generic manufacturing technologies. An increase of 15 percent is proposed for civilian manufacturing R&D. In the area of materials research and development, the budget proposes $84 million for a new initiative in the National Science Foundation intended to strengthen the position of the United States in next generation materials synthesis and processing. Initially, two high-payoff areas will be emphasized: electronic and photonic materials, and biomaterials.

Within the Department of Commerce, and specifically within the National Institute of Standards and Technology, the Administration proposes a 15 percent increase, to a total of $248 million, to expand NIST's ability to perform generic applied research and technology development and to address a rapidly growing number of important standards and measurement issues. Long-term projections for NIST call for a budget that is approximately doubled by 1996. These increases will allow NIST to conduct research and provide laboratory support for manufacturing technologies, information technologies, and other emerging technologies that are extremely important to the U.S. economy. In addition, the FY 1992 budget includes $36 million for the Advanced Technology Program to help fund industry-led high-risk R&D on generic, precompetitive technologies.

To extend U.S. leadership in aeronautics, the budget proposes $543 million for aeronautics research and development in NASA, an increase of 13 percent. The program will address, among other items, high-temperature engines, issues associated with supersonic flight, and the aging of today's aircraft. In addition to this work, the budget proposes $305 million for the National Aerospace Plane (NASP), a joint NASA-DOD program, for technology development leading to a 1993 decision on an experimental flight research vehicle. Investments in NASP and enabling technologies are vital to future generations of military and civilian aircraft and to U.S. preeminence in these critical areas.

Biotechnology has become one of the most exciting frontiers in science, offering enormous potential in medicine, agriculture, and industry. In the budget, the President has allocated $4.1 billion to support biotechnology R&D. Over 80 percent of this amount is in the NIH budget, largely in the form of basic research, but 11 other agencies also support programs directly or indirectly related to biotechnology. The budget's emphasis in this area is designed to maintain America's lead in this rapidly growing field and, at the same time, generate fundamental advances in such areas as gene therapy, agriculture, and environmental cleanup.

Finally, let me mention a related item that does not directly involve federal outlays but has a key effect on our ability to secure R&D investments in the future. For the past several years, Congress has been renewing the research and experimentation tax credit on an annual basis, but it has never made the credit permanent, and this has greatly diminished the credit's effectiveness. The Administration is again calling on Congress to make the tax credit permanent this year to help reverse the recent leveling-off of corporate R&D investment and expand its scope.

ORGANIZATION OF APPLIED RESEARCH AND DEVELOPMENT

In the government's support of applied research and technology development, an important factor is the way that it chooses to support that R&D. The technology initiatives cited above tend to be most effective when pursued through collaborative, cost-shared efforts among government, industry, and universities. Where appropriate, R&D should be industry-led with cost sharing and a division of research activities among industry, universities, and government labs.

The formation of industry R&D consortia is another way to encourage private sector public-sector cooperation. Examples of such cooperation are SEMATECH and a new venture involving the Department of Energy, Ford, General Motors, Chrysler, and EPRI on R&D on batteries for electric vehicles. By pooling resources, individual participants do not each have to reinvent the technological wheel but have access to the results of efforts that are several times the investment of any single company.

Together, these organizational arrangements are designed to foster a new, more results-oriented approach to technology development. They have the effect of building technology transfer into the process from the outset rather than attempting to weld it on at the tail end of a project.

The examination of technology development issues is now being pursued by the National Critical Technologies Panel, which was formed last year under the auspices of OSTP. This private sector-public sector panel, which is chaired by William Phillips, OSTP's Associate Director for Industrial Technology, has been examining a number of technologies important to the future economic health and national security of the United States, and the list of critical technologies developed by the panel will be released tomorrow at two Congressional hearings.

In addition, OSTP is now in the process of establishing the Critical Technologies Institute, as directed by the Congress, which will assist in the development of strategies that will follow up on the panel's work in these critical areas.

EXPANDING THE GEOGRAPHIC FRONTIER: SPACE EXPLORATION

This year's budget makes a very strong commitment to the scientific components of the space program, in keeping with the report of the Advisory Committee on the Future of the U.S. Space Program (the Augustine report). It proposes $2.1 billion, an increase of 21 percent over FY 1991, for NASA's space science programs, including astronomy, life sciences, planetary exploration, Earth science, and materials research. This represents about 20 percent of NASA's total budget, which is also in keeping with the Augustine Report.

NASA's proposed $15.7 billion budget also includes support for a Mission to Planet Earth and a Mission From Planet Earth. The Mission to Planet Earth is a vital component of the nation's overall integrated global change program. It includes initial support for the Earth Observing System (EOS), which, for the first time, will make simultaneous observations of the earth's surface by a whole suite of complementary instruments. EOS is an integral part of the U.S. Global Change Research Program coordinated by FCCSET's Committee on Earth and Environmental Sciences.

The Mission from Planet Earth—which includes Space Station Freedom and the Space Exploration Initiative—supports the goal of expanding the human presence away from Earth and into the solar system. Continued development work on Space Station Freedom is funded at about $2 billion, taking into account the ongoing modification of the station to focus on life sciences and microgravity and reduce its operational complexity. The Space Exploration Initiative is funded at about $250 million, including activities in the Departments of Energy and Defense, and as recommended in the Augustine Report is being planned on a "go-as-you-pay" basis.

The budget also recognizes the critical importance of space transportation as the foundation of all U.S. space activities. The budget proposes $350 million (split evenly between DOD and NASA) to continue advanced rocket engine development and to initiate a program that will culminate in the development of a new space launch system. The program's goal is to provide new launch capability for a range of payloads, including heavy-lift, that is both more capable and more cost-effective than today's systems and that will benefit both unmanned and manned space activities.

MATHEMATICS AND SCIENCE EDUCATION

Over the past year, FCCSET's Committee on Education and Human Resources, which is chaired by Secretary of Energy James Watkins and vice-chaired by Ted Sanders of the Department of Energy and Luther Williams of the National Science Foundation, has been examining the federal government's support of science and mathematics education. Guided by the National Education Goals established by the President and the nation's governors, the committee has developed a strategy to maximize the effectiveness of the Federal contribution to American science and mathematics education.

The recently released report of the committee, entitled "By the Year 2000: First in the World," lays out strategic priorities designed to meet the educational needs of the country in this area. At the precollege level, which the report identifies as the highest priority for action, the greatest need is to increase the supply of well-trained science and mathematics teachers. Other areas of emphasis include improving curricula, developing new educational technologies, and increasing student interest and performance in science and mathematics, particularly among women and minorities. Similar strategic priorities have been developed for undergraduate and graduate education. It is important that in our efforts to correct a dismaying series of problems at the precollege level we not lose sight of the importance of maintaining our world leadership in graduate education.

The committee also presents, for the first time, a comprehensive interagency overview of federal funding and programs that affect science and mathematics education at all levels—precollege, undergraduate, and graduate. The federal investments in science and mathematics education are larger than previously recognized: in FY 1991, for example, the federal government spent $1.7 billion expressly for science, mathematics, engineering, and technology education at all levels.

The FY 1992 budget proposes that the federal government increase this amount by over 13 percent, to about $1.94 billion, as part of an integrated interagency effort in science and mathematics education. Precollege education would receive the largest increase—$146 million, or 28 percent.

This report by Admiral Watkins' committee breaks new ground and will greatly influence our national strategy in science and mathematics education.

SETTING PRIORITIES IN SCIENCE AND TECHNOLOGY

The activities and projects I have been describing span a range of disciplines, types of research activities, and investments. But all are tools in meeting the goals listed at the beginning of my testimony. In meeting these goals, the Administration and Congress face the difficult problem of determining the best balance of activities and projects to include in the overall R&D portfolio.

Assembling the portfolio is often referred to as setting priorities. Although the idea of priorities captures part of the process, it is misleading, because it may leave the impression that we can simply rank all of the projects and work our way down the list, stopping when the money runs out. But in research and development, as in most other endeavors, the whole is greater than the sum of its parts. It is thus necessary to obtain the optimal mix in the portfolio of R&D activities and projects.

One of the primary tasks of OSTP is to work with the agencies, with OMB, and with other interested parties to determine what combination of projects will provide the best balance and move us farthest toward our objectives. Along the way, many difficult choices must be made. Excellent projects in worthy fields may need to be delayed or abandoned because they do not contribute as much to the whole as some other project. Any one project may contribute to several of the objectives, or a project that may not be of "high priority" by itself may play a critical role in balancing the portfolio.

In presenting you with the FY 1992 budget, the Administration has set forth its vision of the most balanced portfolio of R&D projects for meeting our common goals in science and technology. We look forward to working with you to maintain this balance and achieve the goals we all desire.

OSTP ACCOMPLISHMENTS DURING THE PAST YEAR

During the past year, the Office of Science and Technology Policy has been involved with varying degrees of intensity in virtually every one of the areas discussed above. As a result, I believe that federal science and technology policy is now stronger, more cohesive, and more forward-looking than it was when I appeared before you a year ago.

Below I will review some of the many activities and accomplishments with which we have been involved over the past year. In addition, a much more comprehensive document, "Summary of Accomplishments: FY 1990, A Report to Congress," is enclosed as part of our budget justification to describe these activities and accomplishments in detail.

First, however, I would like to discuss two organizational initiatives that have had a very important influence on federal science and technology policy. One has been the reorganization and revitalization of FCCSET, which was initiated a little over a year ago. The members of FCCSET are now the Cabinet secretaries or deputy secretaries of agencies involved with research and development and the heads of the independent technical agencies. In turn, FCCSET has formed seven umbrella committees, with jurisdictions spanning the range of science and technology. Some of the committee activities are focused on budgetary and program coordination matters, as in the case of the three budgetary analyses leading to Presidential initiatives in the FY 1992 budget. Other activities are focused on subjects that affect the budget only indirectly. To take just one example, under FCCSET's Committee on Life Sciences and Health, the Biotechnology Research Subcommittee (formerly the Biotechnology Science Coordinating Committee) is identifying and reviewing national and international policy issues (such as public education) associated with biotechnology.

For many decades, observers of American science and technology have debated whether the United States should organize all of its federal research and development activities into a single agency or department to ensure coordination among various programs. The revitalized FCCSET offers a mechanism to provide that coordination while retaining the diversity and agency program authority that have contributed greatly to the strength of American science and technology. The effectiveness of the FCCSET mechanism is amply demonstrated by the three interagency programs that appear as initiatives in the FY 1992 budget. I hope and trust that the FCCSET process can be used much more extensively to bring greater cohesion and coordination to many areas of science and technology policy.

The other major organization initiative undertaken by OSTP has been the establishment of the President's Council of Advisors on Science and Technology, a group of 12 distinguished private-sector scientists, engineers, academicians, and industrialists. Since its formation in February 1990, PCAST has been meeting on an almost monthly basis with the President and with other senior members of the Executive Office. PCAST has helped to bring the private sector's perspective to the federal science and technology policy process at the highest levels, and the deliberations of this group are having an important influence on federal science and technology policy.

STATUS OF REQUESTED REPORTS

In your Senate Appropriations Report 101–474 of last year, you outlined a list of eleven studies and reports for OSTP to undertake. We have worked assiduously to satisfy your requests, and I am pleased to say that virtually all of the reports are on track. The report on rationalizing our relationships and sharing responsibilities with the Council on Environmental Quality has been delivered to you earlier this year. A report listing civilian R&D sectors by priority and identifying the top 20 science prospects in the country has also been delivered to you. A report that documents how the Administration expects to be first in the world in science and mathematics education by the year 2000 and that develops a multilevel priority setting framework that will focus, integrate, and where necessary reassign agency roles in science and mathematics education was completed and delivered to you in the form of the FCCSET report on science and mathematics education. The report developing a policy on academic research facilities modernization is now in the review process and will be ready shortly.

A report to review and respond to the National Academy of Sciences' report on the U.S. Global Change Research Program was delivered to you earlier this year. A report describing the establishment of education offices in each of the federal agencies with R&D activities and coordinating interagency activities toward developing laboratory-education partnerships was delivered to you earlier this week A report on the establishment of the Critical Technologies Institute is still being prepared pending our remaining activities in this area. And the final report, addressing key issues in the global change arena, is now being reviewed and will be ready within a short time.

OTHER OSTP ACTIVITIES

In addition to supporting the work of FCCSET and PCAST, OSTP has been involved with a number of major issues in science and technology. The following is a highly abbreviated list of these issues and activities.

Technology and competitiveness.—OSTP has been involved during the past year in a wide range of technology-related activities. In September 1990, we released the "U.S. Technology Policy," which brings together the many facets of technology policy, describes what they are, and shows how they fit into a comprehensive framework working closely with Congress, OSTP has also organized and headed the National Critical Technologies Panel, which is publicly releasing its first report tomorrow, and is currently engaged in organizing a new Critical Technologies Institute.

Life sciences.—During FY 1990, OSTP took the lead on a number of life science issues of importance to the Administration, including biotechnology, technology transfer in the biomedical sciences, the need for guidelines for handling misconduct in science, and the use of animals in biomedical research. A significant organizational effort has been the Working Group on Biotechnology under the Council on Competitiveness chaired by the Vice President. Another was an 18-member interagency group set up to examine current federal policies and procedures regarding misconduct in science and engineering, and to formulate guidelines for use by all federal departments involved.

Global change.—OSTP has been the lead coordinating entity in developing a comprehensive U.S. policy on global change based on sound scientific principles and the need for strong economic growth. In cooperation with other federal agencies and offices in the Executive Office of the President, OSTP provides coordination on global change issues and is an important source of information and advice for the President through various forums, including the Domestic Policy Council and the Federal Coordinating Council for Science, Engineering, and Technology. OSTP has also been deeply involved, along with the Office of Management and Budget, in the evolution of the $1.2 billion U.S. Global Change Research Program discussed earlier in my statement.

Space.—Through my membership on the National Space Council, OSTP has been involved with a number of space-related issues, including Landsat development and operations, the National Space Policy, the space station, commercial space policy, and the long-range goals of the space program. OSTP has also worked with OMB, NASA, and the scientific community to maintain a vigorous space science program.

Energy.—In FY 1990, OSTP worked directly with the Department of Energy in planning and participating in hearings on science and technology issues underlying the development of a National Energy Strategy. OSTP staff also worked closely with DOE and EOP staff on the Interim Report and on the interagency effort that developed the final strategy.

International science and technology.—In FY 1990, OSTP has been very active in the planning and implementation of a series of important bilateral science and technology initiatives, including those with the U.S.S.R., Japan, Brazil, China, and several Latin American nations, and has agreed to a framework for bilateral discussions with the European Community. Meetings of the U.S.-Japan and U.S.-U.S.S.R. Joint Commissions, which I chaired, were held in Washington, D.C. OSTP has sought in FY 1990 to review and strengthen the protection of intellectual property rights under U.S. bilateral science and technology agreements and to coordinate these agreements among the United States and other nations. Finally, I accompanied the President on his most recent visits to South American nations, where science and technology matters were high on the respective agendas.

National security.—OSTP participates in interagency efforts aimed at resolving critical scientific and technical issues associated with national security and supports the National Security Council in matters concerning science and technology that are related to national security. Key OSTP concerns include the development and application of technology to support emerging defense and foreign policy requirements in such areas as defensive technologies to counter ballistic missiles and chemical and biological weapons; intelligence collection, analysis, and protection; and command, control, and communications capabilities. Also of concern is the maintenance and effective application, throughout the civilian sector, of the enormous national resource represented by the personnel, technology, and know-how currently available in the nation's defense industries and laboratories.

Science and mathematics education.—OSTP has worked closely with other EOP offices and Federal agencies in support of achievement of the National Education Goals relating to science, mathematics, engineering, and technology education. For example, OSTP worked closely with NSF and the Department of Education to improve coordination of science, mathematics, and engineering education programs between these two agencies.

OSTP BUDGET REQUEST

Before turning to the specific amounts and components of our budget request for FY 1992, I would like to summarize and highlight several organizational and personnel features of OSTP. In FY 1990, based on your understanding of the many new demands facing OSTP and the increasing scope and scale of various existing responsibilities, we expanded both in budget and in staff. A limited number of new staff have been added, and we are currently in the final stages of staffing to our authorized budget levels. Also, the first phase of a new networked computer system has been installed to increase our effectiveness, and we have greatly improved our administrative procedures and controls.

Since I became Director of OSTP, the President has nominated and the Senate has confirmed all four Associate Directors called for in the OSTP organic act, Public Law 94–282—the first time in its history that OSTP has had all four Associate Directors. One of my colleagues is now awaiting Senate confirmation to be Associate Director of Life Sciences as a successor for Dr. James Wyngaarden. The President and I are exceptionally pleased that Dr. D.A. Henderson, former Dean of the School of Public Health at The Johns Hopkins School of Medicine and the leader of the World Health Organization program to eradicate smallpox, has decided to join OSTP.

As OSTP moves into a more stable organizational mode and no longer faces the problems of significant numbers of new people becoming adapted to the fast-moving pace of the Executive Office, we will be able to devote more and more attention to honing our agenda in terms of priority-setting. Less time will need to be devoted to institution-building and more can be focused on making things work better. For example, much time and attention has been devoted by me and by senior OSTP staff during the past year to organizing FCCSET, PCAST, the National Critical Technologies Panel, and the National Critical Materials Council. All are now working effectively, and only fine-tuning will be required as opposed to major organizational efforts. The major exception is that significant efforts lie ahead in establishing the Critical Technologies Institute that was mandated by the Congress in the Defense Authorization Act of 1991.

The total FY 1992 budget request of $3,880,000 for the Office of Science and Technology Policy is intended to support 38 full-time permanent staff (including detailees) for OSTP, three staff for the President's Council of Advisors on Science and Technology, and two full-time equivalent personnel (consultants and premium pay). In summary, to better fulfill our mandate, OSTP is working to stabilize its work force of professional and support staff at the approved ceiling of 43.

The FY 1992 request provides for four Associate Directors and, as I noted above, all are on board or are in the midst of Senate confirmation. These senior people head four directorates responsible for policy and international affairs; industrial technology, including critical technologies and materials; the life sciences; and physical sciences and engineering. The request will, in addition, provide for an estimated six assistant directors and a number of policy analysts in key areas. The newest of these assistant directors has responsibility for the social and behavioral sciences. The budget assumes a moderate use of detailees. The professional staff are generalists, rather than narrow specialists, which is essential given the number and variety of the issues addressed by OSTP and the often-changing character of our priorities and agenda. I have been exceptionally pleased with the quality of the people who have joined me at OSTP. The extent of our achievements is a reflection of the expertise and judgment they have brought to their jobs.

The requested level of $3,880,000 is $320,000 more than the FY 1991 appropriated amount, or an increase of just under 9 percent. I would note that the largest component of this increase stems from mandated pay increases ($137,000); the second largest is from the build-up of PCAST to a reasonable operating level compatible with the President's interests ($83,000); and the other large item is a noncontrollable increase in our rent charge by the GSA ($56,000). Roughly another $53,000 comes from increases in utility charges and the additional service costs for computers and other equipment. The precise details are shown in our budget justification book

The FY 1992 request includes $355,000 for support of PCAST. The maturation and evolution of PCAST during the past year and the establishment of several PCAST panels account for the above-mentioned increase. PCAST has become a very active group, with almost monthly plenary meetings, and with small panels to focus on more specific issues. Some of the issues being considered for review by PCAST panels include biotechnology, earth and environmental sciences, education and human resources, high performance computing and communications, and international economic competitiveness. Several PCAST panels will be developed during FY 1992. This increase in activity from the previous year will entail additional expenditures, but we believe that it is well worth the investment.

I might note for general comparison purposes that the Defense Science Board has a staff of nine and a budget of about $3,000,000 annually—nearly the size of the entire OSTP budget. The President's Foreign Intelligence Advisory Board has a staff of five. As I mentioned earlier, I have assigned three of OSTP's personnel allocation to PCAST, although I and others spend significant amounts of time on PCAST matters.

I would be less than grateful if I did not forthrightly acknowledge the generous action of this subcommittee in agreeing to an increase for PCAST in our FY 1991 budget. But I want to underscore that I have carefully reviewed this budget to ensure that it is prudent but lean. We are going to manage the budget as tightly as is possible with the assistance of the Financial Management Office of the Office of Administration in the Executive Office.

I have been examining very closely a variety of ways to delegate various tasks to agencies outside of the Executive Office and have been successful in doing so in a number of important areas. However, an important reality that I have had to come to terms with is that there is a growing set of responsibilities related to Administration programs and policies related to science and technology that I cannot delegate, that are highly labor intensive, and that require extraordinarily high levels of quality control because of the high stakes involved. To provide some flavor of this major observation, included are some key functions of OSTP:

Making recommendations to the President on current major issues of science and technology policy, and directing and participating in interagency coordination on a variety of issues. These tasks have required a very high level of participation and interaction by OSTP in numerous coordinating groups within the Executive Office of the President and with all Federal government agencies.

Directing and coordinating the Federal Coordinating Council for Science, Engineering, and Technology (FCCSET) and its committees and subgroups. This requires an intensive level of participation, coordination, and guidance by OSTP staff of the various FCCSET committees and subgroups.

Coordinating with other Federal government agencies and departments of science and technology elements of the President's budget request to Congress.

Anticipating new science and technology issues, or issues with a significant science and technology component, especially those with a longer-range perspective; and initiating interagency coordination on such issues, including coordinating technical findings or other actions, as appropriate.

Developing, planning, and implementing international bilateral science and technology agreements with foreign countries. Interagency coordination, under FCCSET, of science and technology issues in negotiated agreements with foreign countries.

Directing, coordinating, and convening meetings of the President's Council of Advisors on Science and Technology and its various subpanels.

Preparing reports in accordance with legislative requests.

Other responsibilities assumed by OSTP.

The responsibilities of OSTP have grown in recent years with the growth in importance of science and technology in government policy and in the general affairs of the nation. In addition, the role of OSTP and of the Science Advisor has been upgraded in this Administration and will continue to involve a corresponding increase in workload. Specifically:

The OSTP Director is now a member of the Domestic Policy Council, the Economic Policy Council, and the National Space Council. The OSTP will, in addition, be taking a very active role in the Council on Competitiveness chaired by the Vice President, where OSTP has served as chairman of the Working Group on Biotechnology. Effective participation in these groups requires substantial staff involvement and support.

OSTP has assumed additional responsibilities in a number of areas, including science and mathematics education, the environment, and technology, particularly as its affects global competitiveness.

The upgraded role of the Science Advisor as the Assistant to the President for Science and Technology, the responsibility of the Science Advisor to chair FCCSET and PCAST, and the expanded mission and augmented roles of PCAST and FCCSET have required greater demands on the staff and supporting resources.

An increasing number of Congressionally mandated studies and reports requiring substantial staff involvement, support, and resources.

Given the large workload expected for FY 1992 and beyond, the requested level of support is nevertheless in keeping with the current budgetary constraints. This request represents a judicious application of resources to meet varying and diverse needs and a very resourceful and effective use of funds, in view of the significant effect of science and technology policy coordination within the Executive Office on the overall coherence and effectiveness of the research and development conducted within this nation.

CONCLUSION

I have often said during this past year that the United States, in both the public and private sectors, is underinvesting in research and development. This belief is widely shared in the Administration, and I know that it is widely shared here on Capitol Hill, as demonstrated by the solid increases appropriated to science and technology by Congress last year.

The Administration's proposed FY 1992 budget for research and development continues to take steps to address this underinvestment in science and technology. In addition, it provides for a strong advisory, oversight, and coordinating function through its support of the Office of Science and Technology Policy. We strongly urge that you support these proposals, and we will work closely with you over the coming months to achieve these goals.

That concludes my testimony. I would be very happy to answer your questions.

Senator MIKULSKI. Thank you, Dr. Bromley.

It is very clear that under your administration, the Office of the Science Adviser to the President has taken on a new visibility and has really functioned both as an adviser to the President and a very important coordinating agency. We also know that many of the things that go on at OSTP do not show up only in reports and so on.

I am leading now into some personnel questions and then to some policy issues we have before us in science.

OPERATIONS AT PCAST

Last year one of your budget increases was for PCAST, which is a private-sector group to advise the President. You indicated at that time that the President found this remarkably helpful and that the intellectual interaction, and also his management style, lent itself to that type of interaction. And so, it would be facilitated by having this type of group. It just wasn't a bunch of oom-pah-pah meetings where the chieftains get together and knot feathers and smoke pipes and leave. [Laughter.]

But essentially it was a very good give and take and it helped him focus his own thinking and expose him to ideas.

We know that the President has been enormously preoccupied with other matters over the last several months. But could you share with us, essentially, the role that PCAST played and would you feel that it has done what you had intended, acknowledging the President's preoccupation with the war in the gulf?

Dr. BROMLEY. Madam Chair, I am happy to respond that not only has it met my expectations, it has far exceeded them. I think this has resulted for a number of reasons: first of all, because of the President's personal interest and commitment to interacting with the group; second, because the chemistry within the group has turned out to be better than I could have hoped; and the chemistry between the group and the President is such that we now have no wasted effort. The discussions immediately focus on important issues and the President's time with us is used very effectively. The President pays very strict attention to these discussions, asks questions, gets answers.

Another measure of the effectiveness of the PCAST activity is that, increasingly, when the President joins PCAST, so also do most of the senior folk in the White House—Messrs. Darman, Sununu, Porter—and we have a full-scale discussion of the important issues that are facing us as a nation.

Senator MIKULSKI. That is great.

PERSONNEL LEVELS

Well, we are very knowledgeable about your personnel issues and the requests there seem quite modest.

In terms of GSA and the budget, we are very sympathetic. Your colleague, Dr. Massey, himself is very familiar with GSA. [Laughter.]

This Senator knows more and less about GSA than I ever need.

But I would just hope when they raise your rent, you get your money's worth. As a Congresswoman some years ago, I was in the Fallon Building, and the conditions were so bad for what they wanted to charge me, I almost organized a rent strike among constituent agencies in the building. The Corps of Engineers wanted to gut it. IRS wanted to seize it as an asset. We can joke about it now, but we are familiar with GSA. We know that you need the space and we will cooperate with you.

Do you feel now, though, in terms of your personnel cost, you pretty much have everybody on board and now you will be essentially staying the course rather than adding?

Dr. BROMLEY. I have an agreement with Director Darman that we have now essentially stabilized our personnel situation. I am extremely pleased, as I said, with the people that I have.

I should report to you also, Madam Chair, that during this past year I have moved the administrative office of OSTP that used to be over in the New Executive Office Building back into the Old Executive Office Building where my office is located, and this makes for vastly greater effectiveness. Pennsylvania Avenue might as well be 15 miles wide in terms of the communication problems. So even though we are in much less space than we had previously, and the square foot rent has gone up significantly, we are in a better area.

Senator MIKULSKI. Well, Doctor, we are going to be talking to Dr. Massey about the National Science Foundation relocation. It is a longstanding issue. We have many things to talk to him about.

But I am glad you said it does not matter if it's 15 miles away. You know, that takes you right into Maryland. [Laughter.]

Thank you for boosting my Federal relocation argument. Would you make a note and underline that in the record? [Laughter.]

INDIRECT COSTS AT UNIVERSITIES

Now, I would like to move on to some of the policy issues that OSTP has also undertaken.

One of the concerns we have is for facility modernization at the university level. And an issue that has come before the Congress affecting many of the mission agencies in science is the issue of indirect costs and of the university facilities. We are familiar with the Stanford situation, and yet, when one analyzes the rise in indirect cost, it has been primarily not so much in charging chardonnay to general administrative, but it has been used to help take care of the modernization on university campuses.

Could you tell us—because there are so many agencies involved, the Science Foundation, Dr. Healey at NIH, Agriculture, DOD—what is your involvement in resolving the indirect cost? Where, within the administration, is the coordination on a really sensible policy in this area? Is it at OMB, et cetera? Can we look forward in a cooperative relationship to bring the cost under discipline and yet not hamstring the need for research in extramural programs?

Dr. BROMLEY. Madam Chair, you have expressed the goals extremely well, and let me respond first on the matter of indirect cost.

As you may recall, back in 1986 David Packard and I produced a report on the health of U.S. colleges and universities for the White House Science Council, and in that report addressed this issue in some depth.

Regarding the things that you have just mentioned, the questions and problems that have arisen in a number of the Nation's major universities, a few weeks ago we undertook detailed discussions with OMB. My office and OMB are working on a very accelerated basis to come up with a number of immediate modifications to A–21 and then to continue a longer range examination of the entire question. I think that I can remind you, Madam Chair, that we have already seen in the Washington Post the first list of clearly defined topics that cannot be included anymore in indirect costs. That is just the beginning, the tip of an iceberg.

Frank Hodsell at OMB is heading up this activity, with strong cooperation with my Office. We have met on many occasions. We met with a number of university presidents and have been talking with them. We will make sure that we have close contact with what is going on out in the university world to make sure that the changes we make are sensible and reasonable but address just the issues that you yourself have raised. We are going to have, within 2 months, some fairly significant changes in A–21, and over the next 6 months we will be continuing the active investigation of the indirect cost question.

Senator MIKULSKI. Doctor, who in your organization is in charge?

Dr. **BROMLEY**. In my organization, D.A. Henderson, who for the last 10 years has been dean of the School of Public Health at Johns Hopkins. He is now my Associate Director for the Life Sciences. He is an old hand at these questions, both from a faculty point of view and from the university administration point of view. We, in the Office, also have a substantial background in my case and in Dr. Wong's case.

Senator **MIKULSKI**. I understand the background.

Dr. **BROMLEY**. But Dr. Henderson is the person who is heading it up.

Senator **MIKULSKI**. Well, we know Dr. Henderson quite well from our interaction at Hopkins over the years.

Let me say this. This is not a hearing on indirect cost though we need to raise it, and we are happy to hear this.

It is our understanding that our colleagues in the House, particularly in the Subcommittee on Labor, HHS, are considering action, one of which would be a series of caps. We understand the House's desire to move in a quick step. Our concern is that the appropriations will move before the policy is formulated and, therefore, we could end up with a policy by fiat. And we would really encourage open communication with the House on what should be capped or if there should be a delay. in other words, we would work on some type of agreement with them. So, have you entered into those conversations with the House?

Dr. **BROMLEY**. Yes; we are very much aware of the activities in the House, Madam Chair, and we are in communication with them. We hope that we can convince them that, in fact, caps are not the right approach and that we have better ways of achieving the goals that we all want. We are working with them and we will want to work with you as well.

Senator **MIKULSKI**. Well, thank you. We will be following this with keen attention because this could have a dramatic effect on both public and private universities. There is no doubt that some universities went Gucci. [Laughter.]

Others charged things that were inappropriate, but by and large they were in general administrative costs, which I think we could put disciplines on.

Dr. **BROMLEY**. Yes.

Senator **MIKULSKI**. The issue of the indirect cost helping with facility modernization is another issue which I think has far-ranging ramifications for university facility development.

INFRASTRUCTURE COSTS AT UNIVERSITIES

Dr. **BROMLEY**. May I respond to the second part of your question, Madam Chair, on infrastructure?

There I quite agree again that we have an enormous problem, because for more than a decade the Nation's universities, perhaps unwisely, but nonetheless it is a fact, have been deferring maintenance and investment in capital equipment. In university after university, we now find ourselves in the situation where in some cases the buildings are beginning to collapse and the equipment is older than the students and frequently older than the faculty. Also, in field after field there are critical shortages of both students and faculty. The infrastructure problem is one that I believe we must address.

In the 1986 report that David Packard and I wrote, we had, as you may recall, suggested a temporary catchup program, a competitive infrastructure program funded by the Federal Government. We did not feel that it should be a continuing one, but that it would bring the facilities of our Nation's universities up to an acceptable level, after which arrangements had to be made so that the universities could be self-sustaining. A number of other people did studies at that time—Don Fuqua, for example, did a study—and the results were very similar.

The NSF has just completed a new study, and the magnitude of the problem, as you mentioned, is enormous. The numbers quoted by NSF at the moment are that there is a $12 billion demand. It is important, however, to recognize that amount, only $4 billion is for modernization and renovation. The other $8 billion is for new construction.

I would argue that our first priority has to be modernization and renovation to make it possible for existing scientists and faculty members to do their work. What we do not need, in my view, at this moment, given our budgetary plight, is to build a lot of new buildings which would result in the hiring of faculty and then further demands to which we are not in a position to respond adequately. I would focus, therefore, on renovation and modernization.

I hope that we can work with you and your colleagues in the House during this coming year to structure a competitive infrastructure program, because if I look at the number of earmarked projects in the 1991 budget that have been assigned to universities, I find that we are talking about the same kind of money that would be required to operate a quite substantial infrastructure program. I am thoroughly convinced, Madam Chair, that this would be in the best interests of the entire Nation.

Senator MIKULSKI. Dr. Bromley, as always in our conversations with you, we could have a prolonged conversation. I find your thoughts quite interesting, as I know my colleagues would.

I would really strongly recommend that the White House, as they move ahead on this issue in formulating policy, pull together conversations with the authorizing and appropriating committees on both sides of the dome and both sides of the aisle because I think in some ways it needs a dialog among all of us that requires a candor and purpose. Let me tell you why.

We are each going to have our own little solution. We each want to leap ahead. There is tremendous interest in this topic and I am concerned that some of our solutions could have unintended consequences.

The competitive approach that you have indicated has much merit. My concern would be that it would lead to an intensification of the earmarking game. Now, I know how to play that game as well, if not better, than some of my other colleagues, but I think my concern would be that reforms could lead to other consequences.

We have two types of modernization that could occur: among those that are flagship facilities, whether it is Johns Hopkins in Maryland, the University of Chicago, or a great public facility like the University of Wisconsin. But at the same time there are the smaller schools, historically black colleges, women's schools, the small liberal arts programs where science is a liberal art that in some ways are the incubator of our Ph.D.'s and are reaching out to the new constituencies. That is another area. These latter ones might never get into the competitive situation, or if they do, it is through the modernization of facilities.

So, my feeling is that we really need to talk with each other and actually hash it out——

Dr. **BROMLEY.** I agree completely.

Senator **MIKULSKI** [continuing]. And, if you will, lay our concerns on the table in an atmosphere of candor and no-fault and discuss how to achieve the national goals, but also where we see the potholes that ultimately could knock out our front end alignment, so to speak. So, I look forward to that dialog.

There are many other questions, but we are going to submit them for the record because we are going to move on.

TECHNOLOGY POLICY AND CRITICAL TECHNOLOGIES

I would like to go to the issue of technology priorities. You noted in your comments and testimony the report, "Gaining New Ground," the technological priorities for America's future, an excellent private report. This question goes to the status of our own policies on the critical technologies and also the status of the Critical Technology Institute. Last year that was funded to be operated under your shop by DOD.

Dr. **BROMLEY.** That is right.

Senator **MIKULSKI.** It was really our colleague Senator Bingaman's initiative.

Could you tell us what you envision as the primary role of the Institute? When will it be up and running?

Dr. **BROMLEY.** I will be happy to do that, Madam Chair. First of all, we responded to Senator Bingaman's request for the establishment of a National Critical Technologies Panel, and that Panel was asked to take a look at the activities in the Commerce Department, the Defense Department, the private sector Competitiveness Council, and a number of other areas and to come up with its own list of critical technologies. That report, in fact, will be submitted to the Congress tomorrow. It has now been with the President for a month.

We have identified in that Panel activity 22 critical technologies, and we are the only ones who have, in fact, included in our critical technologies some that relate both to energy and to the environment. But beyond that, there is very good correspondence among the lists. There is a consensus in the Nation as to what the critical technologies are.

Senator **MIKULSKI.** There is the consensus.

Dr. **BROMLEY.** There is the consensus.

CRITICAL TECHNOLOGY INSTITUTE

Now, we come to the Critical Technologies Institute. It was Senator Bingaman's intent that that Institute would provide us with a mechanism to follow up on the report of the Critical Technologies

Panel so that it does not suffer the fate so frequent in this city; namely, disappearing without a ripple.

Our intent is that the Critical Technologies Institute, which we have arranged with the Department of Defense to be funded for 2 years, will provide a group of individuals whom we would hope to bring in from the major universities and industries to spend 1 or 2 years with us. This group could do the kind of strategic long-term planning that we find very difficult to do in the face of brush fires and crises on an hourly basis. This group would report to OSTP, but would not be collocated with us. It would be situated within another organization here in Washington. The intent I would have for it would be that it would provide us with the planning and the actual followup to improve our competitive position as a nation in all of these technologies.

That would involve pulling together consortia, partnerships, and cooperative activities involving the universities, the national labs, and various industrial sector groups. I remain convinced, Madam Chairman, that we have in this country the technological knowhow and prowess such that, if we work together, we can take on anything that foreign competition can throw at us. But if we spend most of our effort and energies fighting with one another, then we can be picked off neatly one by one by foreign competitors. I look on our responsibility as trying to focus and catalyze the development of critical masses in many of our industrial sectors that will give us this competitive stance.

Senator MIKULSKI. Well, Dr. Bromley, where will this be located? Are you at liberty to say that now?

Dr. BROMLEY. It is going to be here in Washington, but I am not ready. We have 2 finalists among some 50 organizations that wish to provide a home for the Institute.

Senator MIKULSKI. But they are not going to run it as a private contractor.

Dr. BROMLEY. Not at all. It will be an FFRDC, but we will name the director. In fact, we are going to do that within a matter of days. We will determine the selection of people. And the organization in which this will be based will provide us with the logistic and administrative support that we simply cannot handle within the scope of our OSTP budget.

Senator MIKULSKI. Well, we will look forward to that announcement.

U.S. TECHNOLOGY POLICY

I have some advisors to me too. They are not as tony as your PCAST group. [Laughter.]

One of the things that they continually repeat, because they are from the private sector, is that we have a very fine emerging science policy in this country, but we do not have a clear direction in a technology policy. They feel that this is a challenge, that we need to move on it. It's the kinds of things that you have thought about when you worked with Dave Packard, your own private sector involvement. And we see the Critical Technologies Institute and the initiative related to it as a way to really focus rather than vague slogans like, "We need a policy" and "Let's reason together."

You know, we will be in the 21st century and everybody will still be deciding where they are going to meet.

Dr. BROMLEY. I could not agree with you more, Madam Chair. You will recall that in September of last year my office did issue a document, the "U.S. Technology Policy." It is the first time that this Nation has ever had a formal technology policy. I, frankly, am not as proud of that document as I might be because it represents a first cut, and it had the rather substantial hurdle of requiring that it be signed off on by everybody in the White House. But this provides what I would like to think of as a foundation document on which we can build and it does represent the first time that we have ever had a formal, administration-approved U.S. technology policy. We will build on that and we believe it is extraordinarily important.

Senator MIKULSKI. Well, thank you, Dr. Bromley.

There are many things we could talk to you about whether it's the supercomputer initiative, the linkage with research universities, or issues special to this committee like the space station and global warming. We are going to put those to your staff. We would welcome your thoughts.

It is now almost 11 and we have just gotten through the first three questions. But I think it is because the role of the Science Advisor is so crucial and cuts across these agency lines. We always use this as an opportunity to see the overall thrust and that is what we are talking about here today, the overall thrust.

So, we thank you for your cooperation, and we will look forward to talking with you on these initiatives, especially the indirect costs.

When you go to Massachusetts—I know it is a special day—you are going to release a very wonderful report, and we know that that was very special to our colleague of many years, Congressman Conte. So, we just hope that this announcement and the release of that report—I know it will reflect the kind of dignity and scientific pursuit he'd acknowledge. And I am sure that there are going to be kind words said about him. I would like to just say that as we go through this appropriations cycle, we miss him. We miss his cigar; we miss his jokes, but most of all we miss his commitment and his dedication.

Dr. BROMLEY. Thank you, Madam Chair.

Senator MIKULSKI. So, have a good time in Boston.

Dr. BROMLEY. The report, indeed, is dedicated to Mr. Conte.

And may I also say, Madam Chair, that I would look forward to, anytime you wish, coming back to discuss any of these issues in greater detail either in formal hearings or in more informal settings.

Senator MIKULSKI. Thank you very much. Thank you, Dr. Bromley.

ADDITIONAL COMMITTEE QUESTIONS

We will submit the balance of the questions for response in the record.

[The following questions were not asked at the hearing, but were submitted to the Office for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR MIKULSKI

CRITICAL TECHNOLOGIES

SENATOR MIKULSKI: Do you agree with the conclusions of the Council on Competitiveness report "Gaining New Ground" that the U.S. needs a technology policy, and, if so, will you prepare a critical technologies initiative as part of the 1993 budget?

ANSWER: On September 26, 1991, the Administration issued "U.S. Technology Policy," a statement of its technology policy. That statement brings together the many facets of technology policy, describes what they are, and shows how they fit into a comprehensive framework. The statement consists of the goals and strategy of this policy and the program implementation proposed in the Administration's FY 1991 budget to Congress.

The President's FY 1992 budget proposes to allocate about $76 billion for research and development. This is an increase of over $8 billion, or 13 percent, over 1991 levels. The budget contains a number of new and expanded programs and initiatives supporting competitiveness and critical technologies. For example:

o Basic Research. The President's FY 1992 budget includes an 18 percent increase for the National Science Foundation (NSF), as well as increases for investment in basic biomedical research at the National Institutes of Health, the Human Genome Project, the National Agricultural Research Initiative, and the Superconducting Super Collider.

o Applied Research and Development. The budget includes increases for the High Performance Computing and Communications initiative, energy R&D, advanced manufacturing and materials R&D, AIDS research, aeronautics, defense, and the National Institute of Standards and Technology. The Administration also proposes to make research and experimentation tax credit permanent and to encourage R&D by multinational companies.

o Space Exploration. The budget includes increases for space transportation infrastructure, space science, Mission to Planet Earth and the U.S. Global Change Research Program (USGCRP), and Mission from Planet Earth.

o Biotechnology. The budget includes increases for biotechnology R&D supported by several agencies.

The President's FY 1993 budget will be formulated next fall. While it would be premature to speculate on the specifics of the FY 1993 budget at this time, it is certain that the budget will support a vigorous program of technology R&D.

SENATOR MIKULSKI: Could you rank the five categories of critical technologies identified by the Council on Competitiveness in their order of economic importance, and tell us if the Administration will "move" on these areas in their order of importance?

ANSWER: As the National Critical Technologies Panel pointed out in its March 1991 report, it is very difficult and probably meaningless to rank technologies in order of their importance. The reason is that there are many interdependencies among critical technologies. For example, advances in materials synthesis and processing are essential to the development of improved semiconductors. Semiconductors, in turn, are the enabling technologies for the microelectronics used in high-performance computers, which are essential in materials synthesis and processing. This completes the circle and illustrates the interdependencies of technologies.

Since the development of any one technology usually depends on progress in developing other technologies, it is not meaningful to establish priority rankings of the technologies. Furthermore, there is no basis for placing any one group of technologies directed at serving a particular national need (e.g., energy) ahead of technologies aimed at a different need (e.g., transportation).

SENATOR MIKULSKI: How would you integrate the previous efforts of your office, the Department of Defense, the Department of Commerce, and the National Science Foundation into a critical technologies initiative?

ANSWER: When the lists prepared by the National Critical Technologies Panel, the Council on Competitiveness, the Department of Defense, and the Department of Commerce are compared, one sees that there is a remarkable consensus as to which technologies are critical.

There is both governmental and industrial support for critical technologies. As mentioned in the answer to your first question, the President's FY 1992 budget includes initiatives addressing elements of many of the critical technologies. Furthermore, many government agencies have performed internal analyses to identify support of the critical technologies. For example, an NSF analysis showed that NSF is sponsoring research in all the technologies that have major importance to the civilian economy.

The Administration and Congress have done a remarkable job in providing the U.S. with the scientific infrastructure essential to technology development and deployment. These activities are of prime interest to the Departments of Defense, Agriculture, and Energy, the National Institutes of Health, and NASA in areas related to their missions. The Department of Commerce is playing an important role in technology research through the National Institute of Standards and Technology and new programs like the Manufacturing Technology Centers and the Advanced Technology Program. The National Science Foundation, while primarily responsible for supporting basic research, is also making significant contributions to research and technology development through the Engineering Research Centers, the Science and Technology Centers, the Industry/University Cooperative Research Centers, and other programs.

SENATOR MIKULSKI: Why is the Administration proposing a High Performance Computing and Communications (HPCC) initiative in the 1992 budget as its first major "critical technology initiative" when this is one area where the U.S. enjoys a strong competitive position? Would it not be more effective to make the first such initiative in an area (e.g., electronic components) where the U.S. is in a very weak position?

ANSWER: In forging a successful science and technology strategy we need to capitalize on our strengths as well as repair our deficiencies. Indeed, many people believe that a winning strategy in international competition must be based on successful exploitation of our greatest areas of strength. These certainly include innovative approaches to complex systems, of which high performance computing is a prominent example. An accelerated development will not only enhance our strengths vis-a-vis our competitors in this sector but will also serve to strengthen allied areas, such as components, where we may be lagging relative to our competitors.

The Japanese success in industrial competitiveness is due in no small part to an exploitation of their principal area of strength, viz., high-volume and high-quality production. Nowhere is that advantage greater than in electronic components. A successful strategy for the American electronic components technology must be based on a broader strategy for the overall information technology. I believe that HPCC is an excellent initiative in this area.

Finally, economic competitiveness is not the only national need to be served by HPCC. It is expected to make significant contributions to education, environmental issues, and national security as well. All of these considerations combine to make the HPCC initiative a high priority.

CRITICAL TECHNOLOGIES INSTITUTE

SENATOR MIKULSKI: Could you tell us when the Critical Technologies Institute, which is an OSTP responsibility, and which was funded in last year's Defense Appropriations Bill, will be up and running?

ANSWER: Now that the report of the National Critical Technologies Panel has been completed and submitted to the President, we expect the pace of implementation of the Critical Technologies Institute to increase. The Institute will expand the Administration's capabilities to examine and analyze science and technology issues.

SENATOR MIKULSKI: What do you envision as the primary role of the Critical Technologies Institute? Will the Administration support future funding for it?

ANSWER: The Critical Technologies Institute has a number of functions listed in the Defense Authorization Act of 1991. We are currently examining which of these functions, as well as others not specified, will be most advantageous to our needs. Because of the necessity to first define the role and scope of the Critical Technologies Institute, the amount and timing of any future funding is undefined at present.

SENATOR MIKULSKI: Where is the report the Subcommittee requested on the Critical Technologies Institute that was due February 1?

ANSWER: The report is being submitted under a separate cover.

RESEARCH UNIVERSITIES

SENATOR MIKULSKI: Can you tell me three steps you are taking to overcome the problem which the Council on Competitiveness cites with our research universities not being sufficiently oriented toward technology needed for the marketplace?

ANSWER: U.S. universities perform superbly in educating and training new students and generating basic scientific discoveries. The Administration has no intention of altering these basic functions of U.S. universities. However, I believe that universities understand that their role is not confined solely to helping ensure our Nation's preeminence in science. Universities are becoming more adept at marrying their skills and resources to the needs of industry. University-industry-government collaborations are becoming increasingly common and productive tools for enhancing the capabilities and productivity of all three sectors. There are a number of programs to foster such partnerships, including the National Science Foundation's Engineering Research Centers, Science and Technology Centers, and Industry/University Cooperative Research Centers, as well as NASA's Space Engineering Research Centers and Centers for the Commercialization of Space. These and other activities are described in a recent report by the Government-University-Industry Roundtable on industrial perceptions of the university role in innovation.

FEDERAL RESEARCH PRIORITIES

SENATOR MIKULSKI: A recent OTA report, "Federally Funded Research: Decisions for a Decade" says that one of the major weaknesses in deciding on what research projects to do is that selection criteria are unclear and vary too much from discipline to discipline (p. 9). Additionally, the report states that we lack any means to evaluate the total federal research portfolio in reaching key national objectives. What is OSTP doing to standardize criteria and provide a genuine evaluation mechanism of our research effort? Could a response to either one of these areas be in place for the 1993 budget request?

ANSWER: Candidate disciplinary projects undergo merit-based review and evaluation within the science agencies and departments, although each agency has appropriately tailored its selection process to its particular needs. The selection criteria are quite clear for each agency. However, different selection criteria are applied to different kinds of projects. For example, disciplinary research projects are selected primarily on the basis of their scientific merit to the discipline in question, whereas thematic projects (e.g., global climate research) are selected for their combined scientific merit and relevance to the overall goals of the program.

Congress faces a difficult situation in which different portions of the science budget are considered by different Committees rather than as a single portfolio. The consideration of overall balance is an area where the Executive Office of the President (EOP) -- particularly OSTP and OMB -- discharges a unique responsibility. We have both the responsibility and the opportunity to examine the R&D budget in total and to address the critically important issue of overall balance among its components. In exercising this responsibility, each year the EOP reviews and adjusts the relative emphasis in the budget on areas as diverse as national security, the research base, science and mathematics education and human resources, megaprojects, individual investigators, and interagency programs designed to meet defined national needs, such as global climate change and high-performance computing. Our R&D effort is so multifaceted and the characteristics of those individual facets are so different from one another that different selection and evaluation criteria must be employed in each area.

SENATOR MIKULSKI: Why can't or won't the Administration prioritize the scientific projects for which it seeks funds -- particularly on megaprojects like the Superconducting Super Collider, the Space Station, or the Human Genome Project?

ANSWER: The Administration selects scientific projects for inclusion in the budget request through a process of proposal evaluation, priority setting, and negotiation that involves the Executive Branch science departments and independent agencies, OMB, OSTP, and the President. Our priorities are expressed in the inclusion or non-inclusion of a given project in the budget request to the Congress. Overall, the President's budget reflects a carefully struck balance. Each component plays an important role in the overall R&D effort. Assigning relative priorities among selected projects would inevitably distort this balance.

SPACE STATION

SENATOR MIKULSKI: Does OSTP and do you, Dr. Bromley, support the redesigned Space Station as proposed by NASA?

ANSWER: OSTP supports the redesigned Space Station, as do I. The Station is a critical step in Man's exploration of space, and it would be tragic if our Nation were to turn away from what is without doubt one of the greatest adventures of our time.

SENATOR MIKULSKI: Is it your scientific opinion that it will provide the U.S. with substantial benefit in both microgravity and life science research?

ANSWER: The life science research that will be conducted on Space Station Freedom concerning the effects of weightlessness on humans is of great importance, and it is critical to the future of our manned space exploration program. Beyond this, I would expect benefits from research in other areas as well, recognizing however that these subsidiary benefits would be incidental to the main motivation for the project.

SENATOR MIKULSKI: Do you believe that recent scientific criticism of the redesigned Station is motivated more by a misplaced expectation that, if the Space Station were terminated, more funds would be available for other science projects?

ANSWER: I believe that the criticism from the science community stems, at least in part, from a misconception that the Space Station is primarily a science project. It is not, should not be judged as such, and its configuration should not be modified to compromise the achievement of its primary goals. At the same time, science can benefit from the Space Station. I am confident that the science community will continue to advise NASA of ways in which the configuration can be optimized to take advantage of scientific opportunities.

GLOBAL CHANGE

SENATOR MIKULSKI: At the Subcommittee hearings in February 1989, you promised a "policy" document on global warming that would complement the FCCSET report on global warming research would be forthcoming. Given the fact that scientists have generally concluded that the earth is warming, why do we still have no global warming policy more than a year later?

ANSWER: As promised, the U.S. policy document on global warming has been published. The report, "America's Climate Change Strategy", was released on February 4, 1991 at the start of the first negotiating session of the Framework Convention on Climate Change. ~~A copy of that report is attached.~~

SENATOR MIKULSKI: At last year's hearing, the Committee requested a report on what OSTP considered the maximum acceptable level of greenhouse gases, what share is due to the U.S. activities, what our mitigation strategy would be, and when the levels would be stabilized. This report was requested on March 1. Why is the OSTP report late, and when will it be available?

ANSWER: The report regarding maximum acceptable levels of greenhouse gases and other related questions was sent to the Committee on April 18, 1991. A copy of this report is enclosed.

SENATOR MIKULSKI: Is it fair to say the Administration's decision making process on mitigation indicates that a breakdown of roles among the various federal agencies involved in greenhouse gases has occurred?

ANSWER: On the contrary, the Mitigation and Adaptation Research Strategies (MARS) Working Group of the Committee on Earth and Environmental Sciences (CEES) is working to improve overall coordination of the many federal agencies with various mitigation responsibilities. The goal is to utilize the scarce scientific and technical resources that are available in the most efficient way possible.

INDIRECT COSTS

SENATOR MIKULSKI: The indirect costs that may be charged by academic institutions is governed by OMB policies. How do you think the recent abuses were allowed to occur?

ANSWER: OMB Circular A-21 establishes principles for determining costs applicable to grants, contracts, and other agreements with educational institutions. Universities and their cognizant agencies negotiate reimbursement rates for indirect costs allowable under the A-21 guidelines. Some institutions interpreted these guidelines in such a way so as to maximize their reimbursement from the federal government. However, interpretations by the institution and by the federal government have not always corresponded. These problems point out the need for uniform accounting standards to ensure proper classification and to reduce misinterpretation of what is allowable and not allowable.

SENATOR MIKULSKI: What steps has the President directed OSTP and OMB to take to address and correct the flaws in the system that permitted the problems such as those at Stanford?

ANSWER: The Administration is also carefully reviewing this problem and has taken several significant actions with regard to Circular A-21. First, the Administration has moved to exclude certain specified costs from the indirect cost reimbursements paid to colleges and universities. Second, the Administration has proposed new controls limiting reimbursement of administrative costs to a maximum of 26 percent of modified total direct costs as well as other important reforms. Third, the Administration has convened a special task force to review cost accounting standards and the policies underlying Circular No. A-21. This task force includes representation by the Office of Science and Technology Policy, the Departments of Agriculture, Defense, Energy, and Health and Human Services, and the National Science Foundation and is led by the Office of Management and Budget. Finally, the Cost Accounting Standards Board will be establishing new cost accounting standards for federal research contracts.

SENATOR MIKULSKI: Although indirect cost rates are negotiated by delegated agencies (e.g., Department of Health and Human Services, Office of Naval Research), some agencies provide a lower net level of indirect reimbursement to academic institutions. What is the source of these differences?

ANSWER: There are a variety of factors that determine the final reimbursement rate at a given institution. Differences in the specific research topic, length of contract, regional labor and operational costs, size and scope of the institution, and the site where the research takes place are some of the many variables which are considered in the determination of the indirect cost rate. For instance, research conducted at an off-campus site is usually charged a lower indirect rate than research done at an on-campus location. A greater portion of off-campus research costs are generally charged to direct costs because such work tends to be more easily identifiable to a specific project. On the other hand, on-campus research is spread out over a larger base of an institution's infrastructure. Thus, research costs associated with on-campus research is usually included in the indirect cost pool because it is more difficult to attribute such activity to an individual project. In addition, training grants often have lower indirect cost rates that standard research grants.

SENATOR MIKULSKI: What is the Administration position on a cap on the total amount of indirect costs an agency could award in a given year? What about a cap on indirect costs paid for general administration?

ANSWER: As explained above, the Administration is still reviewing this problem, although a number of important actions have been taken to date. Among these actions, the Administration has proposed new controls limiting reimbursement of administrative costs to a maximum of 26 percent of modified total direct costs.

ACADEMIC RESEARCH FACILITIES

SENATOR MIKULSKI: The 1986 report of the Packard-Bromley Committee documented the facility needs in academia at nearly $10 billion. Why, some five years later, have we seen no response to this need? In fact, the only competitive facility support program (at NSF) is being proposed for termination this year.

ANSWER: OSTP estimates that on the order of $650 million in federal support has been made available in FY 1991 for research facilities at academic institutions. That support consists of three main components: $236 million in indirect cost recovery for depreciation and use allowances; $276 million in congressional set-asides for research facilities; and agency projections of $133 million available for R&D plant at academic institutions. (Please note that these budget totals are estimates only and contain some uncertainties.)

SENATOR MIKULSKI: The Subcommittee requested a strategic plan on academic research facilities modernization Program from OSTP by April 1 but has yet to receive it. In anticipation of its release, could you tell us your strategy to ease the burden on research universities in this crucial area?

ANSWER: The report requested by the Subcommittee was sent on May 3, and a copy of that report is enclosed. The report outlines the multiple sources of support available to universities for new construction and repair and rehabilitation of research facilities. Among these, indirect cost recovery is a major component.

As the subcommittee is aware, OMB is undertaking a review of Circular A-21 governing indirect cost principles for universities. OSTP is working with OMB in that process. The issues surrounding facilities will be considered as part of that review. Because indirect costs are so central to the support of academic research facilities, it would be premature to establish a detailed strategy regarding that support until the review of A-21 has been completed and the impact of any changes has been fully assessed.

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20506

April 26, 1991

Dear Madame Chair:

I appreciate your concern regarding global climate change and am pleased to be able to comment on U.S. Plans for appropriate policy action regarding this important issue. As you are aware, a number of important events have transpired since the Senate Report was issued in September of 1990, and I believe that the action taken by the Administration will address the questions which were raised in that document. In fact, we have made great progress in this area over the past year, and I am most pleased to have the opportunity to describe to you our recent activities.

I am happy to report that from February 4-14, 1991, the U.S. hosted the first negotiating session of the Intergovernmental Negotiating Committee, which has been set up under the auspices of the United Nations to negotiate an international framework convention on climate change. On the first day of the session, the U.S. released America's Climate Change Strategy, the President's action plan for climate change. Because it represents or contains the answer to a number of your questions, I will refer to that document throughout the answers to your questions as appropriate. America's Climate Change Strategy outlines the comprehensive strategy for action on climate change; one that is comprehensive, incorporating all greenhouse gases, and both their sources and sinks; which is long-term, taking into account the consequences of policies over the long-run; which is flexible, built on many diverse actions which can be adjusted as knowledge improves; and which is integrated, to involve all nations and reflect the unique circumstances of each. The U.S. Strategy for Climate Change includes a number of specific actions and initiatives, such as eliminating stratospheric ozone-depleting compounds, direct control over certain greenhouse gases and their precursors, reducing utility and other industrial emissions in such a way as to strongly encourage energy efficiency, increasing forest greenhouse gas sinks, encouraging energy efficiency in such areas as buildings, appliances, and lighting, and increasing the use of renewable and non-fossil sources of energy. The strategy is built upon a series of actions which will have broad ranging benefits --- from curbing air pollution, to conserving energy, to restoring forest lands, --- and which will help curb net greenhouse gas emissions. Actions included in the strategy will result in U.S. greenhouse gas emissions in the year 2000 being equal to or below the 1987 level. In addition, the recently released National Energy Strategy identifies a number of additional initiatives which, if fully implemented, would hold U.S. greenhouse gas emissions, on a global warming potential basis, to current levels for the foreseeable future.

In addition, I would like to provide you with another document released at the February negotiations which describes in detail our "Comprehensive Approach". This report, A Comprehensive Approach to Addressing Potential Climate Change, will provide some of the additional and more detailed information regarding our approach to climate change that you may desire in the answers to your questions.

The answers to your questions are enclosed. If you have further questions or would like additional information please do not hesitate to contact me.

Sincerely,

D Allan Bromley

D. Allan Bromley
Director

ANSWERS TO QUESTIONS RAISED IN SENATE REPORT 101-474

REGARDING THE OSTP SECTION OF H.R. 1558

Question #1 What does OSTP consider to be the maximum concentration of greenhouse gases which is acceptable?

No definition of a "maximum concentration" of greenhouse gases which is acceptable has been developed; however, substantial research has been undertaken to estimate future growth in greenhouse gas emissions, their effect of future atmospheric concentrations of greenhouse gases in the atmosphere, and the potential additional warming of the earth's surface which could occur at different levels of concentrations. For instance, the Intergovernmental Panel on Climate Change completed a major assessment, released in August 1990, of the climate change issue. This report includes a variety of scenarios of future emissions and concentrations and estimates the additional warming which could result under each. The IPCC report also points out the considerable remaining uncertainties in its predictions due to incomplete understanding of sources and sinks of greenhouse gases and the responses of clouds, oceans and polar ice sheets to changes in radiative forcing caused by increasing greenhouse gas concentrations. Aggressive efforts are being pursued internationally to help resolve these uncertainties. They are also a major focus of the U.S. Global Change Research Program. The elements of this program are described in ~~the copy of~~ America's Climate Change Strategy.

A substantial amount of work is being done to better understand the entire greenhouse gas issue. The Intergovernmental Panel on Climate Change (IPCC) Working Groups I, II and III have addressed this issue, and it will continue to be addressed through the negotiations for a Framework Convention. In addition, the substantial international research program as well as the U.S. Global Change Research Program continue to seek to answer this question in a decisive fashion.

1.a. What is the date by which those concentrations will be reached and stabilized?

The implementation of the U.S. Climate Change Strategy will keep U. S. greenhouse gas emissions in the year 2000 equal to or below the 1987 level. Furthermore, the effect of the Administration's National Energy Strategy would be to contain U.S. emissions of greenhouse gases at or below those levels through the year 2030.

The date by which the concentrations will be reached and stabilized is not known at this time.

Questions #2 What is the US contribution to the concentrations of greenhouse gases?

In 1987, among the 50 countries with the highest greenhouse gas net emissions, the top five countries were: U.S. (17.5%); U.S.S.R. (12%); Brazil (10.5%); China (6.6%); and India (3.9%). By the year 2025, due to rapid growth of greenhouse gas emissions in developing countries, the total of the developing countries' carbon dioxide emissions will be greater than the carbon dioxide emissions of the industrialized (OECD) countries, based on current policy trends.

2.a. What specific policy measures does the administration intend to propose that would reduce levels of emissions consistent with the levels of concentrations which they expect to occur?

Specific policy measures proposed by the Administration that will limit greenhouse gas emissions have been outlined in the recently-released U.S. Action Plan, America's Climate Change Strategy. The actions are described on pages 2 - 13 of the Strategy and include the following:

- Phasing out CFCs and many other ozone-depleting compounds which are also greenhouse gases; even faster than the Montreal protocol requires.

- Under the Clean Air Act, acid deposition title, putting a permanent ceiling on sulphur dioxide emissions at sharply reduced levels and allowing industry flexibility in the options chosen to meet these ceilings, thereby encouraging energy efficiency and reducing greenhouse gas emissions.

- Reducing, under the Clean Air Act, air pollutants which are either greenhouse gases themselves or greenhouse gas precursors (volatile organic compounds, carbon monoxide and nitrogen oxides);

- Initiating a program to plant a billion trees a year and to make other forest improvements, thereby enhancing sinks;

- Implementing a number of programs aimed directly at speeding the adoption of energy efficient technologies and practices in homes and businesses; and

- Limiting methane emissions from landfills;

- Promoting the use of, and accelerating research into, non-fossil fuel energy sources such as solar, nuclear and alternative fuels.

Additional contributions to the greenhouse gas emissions reductions listed in the Climate Change Strategy are described in greater detail in the National Energy Strategy. Greenhouse gas emission reductions would be produced by the National Energy Strategy. These reductions are achieved by: (1) greater use of renewable energy and nuclear power and improved energy efficiency in both the electricity and the transportation sectors; and (2) other actions already taken by the United States (for example, the Clean Air Act Amendments of 1990). With all of these initiatives, the United States contribution to global atmospheric concentrations of greenhouse gases would, in the National Energy Strategy scenario, remain at or below present levels for the foreseeable future through 2030. While the accuracy of any future projections diminishes as the time horizon under consideration lengthens, the National Energy Strategy will significantly reduce greenhouse gas emissions relative to any current policy baseline.

Question # 3 What is the administration's decision making process on the greenhouse issue?

To ensure the development of a comprehensive and forward-looking U.S. policy on global change based upon sound scientific principles and strong economic growth, the President established a Global Change Working Group under the Domestic Policy Council chaired by OSTP Director, and Assistant to the President for Science and Technology, D. Allan Bromley. The Working Group provides Cabinet-level coordination on global change issues and is an important source of information and advice for the President.

The Working Group set in motion a series of studies on: (1) Economic costs of global change and responses to it; (2) Private sector activities and issues; (3) Legal precedents for international agreements and conventions. As a result, an interagency task force on the economics of global change was formed under the Global Change Working Group, and that task force produced a report, The Economics of Long-Term Global Climate Change - A Preliminary Assessment in September of 1990.

Another subgroup of the Global Change Working Group, the Task Force on the Comprehensive Approach to Climate Change, developed the details of the new approaches to the design of potential climate change policy, the "comprehensive" and "economic incentives" approach. The Report from this group, A Comprehensive Approach to Addressing Potential Climate Change ~~is attached. As noted, this report~~ contains a detailed description of the Comprehensive Approach.

In addition, Dr. Bromley's FCCSET (Federal Coordinating Council on Science, Engineering and Technology) Committee on Earth and Environmental Sciences (CEES) Working Groups on Global Change and Mitigation and Adaptation Research Strategies have been developing detailed plans for research required to provide the scientific basis for the establishment of a comprehensive index that places the various gases on an equivalent scale which represents the contribution of a compound's atmospheric emissions (or removal) to perturbing the radiation balance of the planet. The report "Our Changing Planet: The FY 1992 Research Plan" ~~which~~ describes the research plan.

The DPC Global Change Working Group has also continued to address the many international climate change activities over the past year, such as the preparation for the first negotiating session for the Framework Convention on Climate Change.

All international activities are closely coordinated with the work and activities of the Policy Coordinating Committee Working Group on Climate Change, chaired by the Department of State.

3.a. What are the steps which the administration has already taken to reduce emissions and what quantifiable reductions have taken place?

Please see answer to question #2a.

As noted above, the U.S. Climate Change Strategy should result in U.S. greenhouse gas emissions in the year 2000 being equal to or below the 1987 level. The National Energy Strategy has proposed a series of actions that will limit greenhouse gases well into the future, resulting in stabilization of U.S. greenhouse gas emissions at about 1990 levels or lower for at least the next forty years. In addition, the U.S. has essentially stabilized its emissions of carbon dioxide over the last fifteen years despite growth in economic output of about 50%. During this same period, global carbon dioxide emissions have increased substantially.

3.b. How is the responsibility for the control of greenhouse gases divided among Federal agencies?

While the responsibility for the control of greenhouse gases is divided among individual Federal Agencies according to the legislative mandates of each agency , the collective and cooperative activities regarding greenhouse gases is coordinated through several different mechanisms:

- The development of a global change policy for the United States is, as described in Question #3, coordinated among all appropriate Federal agencies through the Domestic Policy Council Global Change Working Group, chaired by Dr. D. Allan Bromley.

- Coordination of international activities regarding global change (such as negotiation of a Framework Convention on Climate Change) takes place, in close cooperation with the DPC GCWG, within the PCC Working Group of Climate Change, chaired by Department of State.

- Coordination of Federal research activities regarding greenhouse gases and global change are planned and coordinated through the US Global Change Research Program by an interagency group, the Committee on Earth and Environmental Sciences (CEES) and the Global Change Working Group of the Federal Coordinating Council for Science, Engineering, and Technology (FCCSET).

4. What is the administration's plan, if any, for achieving an international consensus on the proper strategy for coping with the potential of the greenhouse effect?

The Administration feels very strongly that a coordinated international response is absolutely essential if we are to better understand and effectively address climate change. No one nation, or small group of nations, can hope to address this issue effectively by acting alone.

Therefore, the Administration feels strongly that the most appropriate forum and mechanism for achieving an international consensus on the proper strategy for coping with the potential of the greenhouse effect is through successful negotiation of a Framework Convention on Climate Change. under the existing mechanism set up through the United Nations. This mechanism allows for full participation by and interaction among all nations - a key ingredient to a successful strategy.

In fact, President Bush hosted the first session of these negotiations on February 4-11, in Chantilly, Virginia, where 101 countries from every region of the world and representatives from over 20 international organizations, representing both developing and industrialized nations, participated in this session.

The President, in a letter delivered to the delegates on the opening day of the conference, stated "We are prepared to work openly, diligently, and respectfully toward achieving the goal of completing a climate change convention in time for its signature at the United Nations Conference on Environment and Development in June of 1992."

After much hard work by the various interagency groups involved in the global change issues, the U.S. was prepared - at the First Negotiating Session of the Framework Convention on Climate Change on February 4, 1991 - to begin the detailed work on a climate change convention.

We had hoped to develop a draft negotiating text during this session, however, resolution of procedural matters left no time for consideration of substantive proposals at the first session. The difficultly in resolving even procedural issues indicates the complexity of this subject and the importance many countries, including the United States, attach to it. We look forward to continuing to work diligently over the next months in order to complete a convention by the United Nations Conference on Environment and Development in June of 1992.

4.a. What is the timetable, if any, for implementation of that strategy?

The United States is, as noted by President Bush in his letter to the delegates on the opening day of the conference, "prepared to work openly, diligently, and respectfully toward achieving the goal of completing a climate change convention in time for its signature at the United Nations Conference on Environment and Development in June of 1992."

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20506

May 3, 1991

Dear Madam Chair:

I am writing to respond to the Committee's concerns with respect to funds for the modernization and rehabilitation of the Nation's academic research facilities, expressed in your report on the Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriation Bill, 1991 (S.Rept. 101-474).

As the Committee knows, this problem has been raised frequently in recent years -- by OSTP, NSF, and other Federal agencies, in the university and scientific communities, and in the Congress. It remains a concern today.

However, this issue must be considered and dealt with in the context of other important research needs at academic institutions. Within limited budgets, decisions must be made on the allocations of research funds for several different types of activities at academic institutions, including:

- o Conduct of research (including overhead)
- o Construction of new facilities
- o Modernization and rehabilitation of facilities
- o Upgrading instrumentation
- o Direct student support

Strong arguments can and have been made for increased Federal funding in each of these areas. On the difficult question of priorities, however, there are major differences within the scientific community. For example, facility modernization and rehabilitation was singled out for a top priority in a 1990 report of the Institute of Medicine (IOM) and also, very recently, in a March 1991 National Research Council report on needs in astronomy. On the other hand, the IOM recommendation was directly opposed by one of the major scientific organizations (the Federation of American Societies for Experimental Biology). There are many indications that the most widely felt current concern in the academic research community is with the adequacy of Federal funds for direct support of research by individual investigators.

As the Committee knows, the FY 1992 Budget provides substantial increases for research at academic institutions, in spite of the tight overall limitation on domestic discretionary budget. For the agencies supporting academic research, top priority was given to increasing funding for the conduct of research. The budget contains selected direct support for several priority programs, including $50 million in the NSF budget for upgrading academic research instrumentation and $25 million in the Department of Agriculture budget for competitive grants for construction and improvement of academic research facilities in support of the Administration's national initiative for research in agriculture and related fields.

It is important to recognize that indirect cost reimbursements are a major source of Federal funding for facilities and instrumentation. Indirect Federal support for facilities, including operations and maintenance, reached almost $1 billion in 1988 (the latest year for which data are available). This level represents a 70 percent increase, in real terms, of indirect support over the 6-year period from 1982 to 1988. About $200 million of that 1988 amount was for facilities depreciation.

I believe that the decisions regarding direct support were correct in the context of the FY 1992 budget. The tight budget limitations make it especially important that the allocations of Federal research dollars to academic institutions be made on the basis of relative merit as determined in a competitive or other objective review process.

In the allocation of scarce Federal funds to academic research facilities, priorities have been seriously distorted by Congressional actions earmarking funds for academic facilities that have not been subjected to competitive or other forms of objective review of their merits. In the FY 1991 appropriations, we have identified 67 academic facility earmarks totalling $276 million. Earmarks like these distort priorities by diverting funds from merit-based programs or by augmenting research spending without consideration of the merits of other possibly higher priority needs. I strongly urge that Congress, in acting on the 1992 and future budgets, adhere to the principle that research dollars, including those for facilities, be allocated to academic institutions only through competitive or other merit-based review and selection processes.

It is, of course, essential that we be sensitive to the very real educational needs of small institutions, many of which feel that they would be effectively excluded from success in any open competition. Given that at least 50 percent of college freshmen and women attend colleges within 50 miles of their home, we share a very real responsibility to provide high quality undergraduate opportunities on a widely dispersed geographic basis. And I know that you share my belief that contact with research at the frontiers of some field is essential to really first class undergraduate teaching. This is one reason why programs such as EPSCOR are so important in helping institutions to develop excellence in certain selected research fields not only improving the education they provide but also making them more effective competitors for any proposed infrastructure programs. Finally, it always bears emphasis that research that is less than excellent does nothing good either for education or for local economic development.

As you are aware, OMB is undertaking a review of Circular A-21, "Cost Principles for Educational Institutions." The issues surrounding facilities and the allocation of associated costs will be considered as part of that review. OSTP is involved in that process, which I believe will make a significant contribution to the priority decisions in the FY 1993 Budget.

I am enclosing for your information a report discussing in some detail the current situation with respect to academic research facilities and funding.

Sincerely,

Allan

D. Allan Bromley
Director

ACADEMIC RESEARCH FACILITIES MODERNIZATION

Office of Science and Technology Policy

April 1991

PURPOSE OF REPORT

This report responds to the Report from the Senate Committee on Appropriations accompanying H. R. 5158 (S. Rept. 101-474) which requested that OSTP address the academic research facilities modernization issue. It identifies the significance of academic research facilities and the Federal interest in them, and summarizes institutional needs and recent patterns of facility support.

SIGNIFICANCE AND TYPES OF RESEARCH FACILITIES

Scientific and engineering research is critical to our nation's continued economic growth and competitiveness. Three key elements of the United States' research system are scientific and engineering personnel, instrumentation, and research facilities.

Research programs at our nation's colleges, universities, and other research institutions provide both the knowledge and understanding for tomorrow's scientific and technological advances and the training for our future scientists and engineers. The laboratories and facilities in which this research and training are conducted are an important national resource. State-of-the-art facilities and equipment are important determinants of what research will be done and how productive those efforts will be.

Specialized Facilities

Federal support for research facilities may be for specialized facilities or general facilities. Specialized facilities, which are usually large or unique, are often focused on a specific agency mission or purpose and are frequently national or regional in scope. Specialized research facilities include oceanographic research vessels, accelerators, aircraft, telescopes, observatories, supercomputing facilities, high-level biological containment facilities, and Federally-funded research and development centers. Mission agencies typically provide direct support to build, operate, and maintain such facilities.

General Facilities

General facilities are more broadly focused and are where most Federally sponsored and other academic research and research training are conducted. They include research buildings, research laboratories, support rooms, general clinical research units, and other institutional or departmental facilities in the various scientific and engineering disciplines. Except for a small program at NSF, Federal agencies currently do not have competitive programs to provide direct support for the construction of general research facilities at academic institutions. This represents a change from the mid-1960's to the early 1970's when NIH, NSF, NASA, and other agencies provided significant funds for construction. However, agencies sometimes renovate or even construct new facilities as part of competitive grants for which the facility is integral to the performance of the research supported by the grant.

FEDERAL INTEREST

There is a growing realization that the nation's economic well-being and competitiveness are based on continued leadership in science and technology, and on broadening the base of institutions conducting research and research training. The Federal government recognizes that academic research facilities are integral to the vitality of the nation's research enterprise.

The Federal government is the primary sponsor of research and development (R&D) at colleges and universities. Understandably, the Federal government is concerned about the adequacy and condition of the research facilities where these activities take place. The Federal Government has provided considerable funds over the years to help maintain and strengthen those facilities.

Federal support for academic research facilities may have several purposes:

Modernizing Facilities - renovating, expanding and upgrading research facilities to replace deteriorated and obsolete buildings, systems and major equipment, and to meet current standards and changing research and technology needs;

Meeting Regulatory Standards - establishing or modifying facilities to meet requirements imposed by regulatory changes for such concerns as animal management, biohazard protection, and toxic waste disposal;

Broadening the Base of Science - creating and sustaining facilities to meet the needs of emerging fields of scientific and engineering research; and

Broadening the Base of Institutions - expanding the pool of institutions in the research and research training enterprise, with appropriate emphasis on institutions with substantial minority enrollments. This goal is particularly important in view of changing demographic patterns and the fact that for more than two decades, nearly half of all college freshmen have attended institutions within 50 miles of their homes.

RECENT ACTIONS RELATED TO RESEARCH FACILITIES

A major White House Science Council report as well as recent statutes have dealt with the issue of Federal support for general purpose academic research facilities.

White House Science Council Report

A 1986 White House Science Council Report recommended a separate Federal facilities fund, incremental to current R&D support, which would provide $5 billion over a 10-year period for peer-reviewed research facilities awards to be matched 50/50 with non-Federal funding. The report also recommended that Federal research awards reimburse institutions for the use or depreciation of facilities on a more realistic basis. Tax credits for industry funding of university research and facility support were also recommended.

Title II of P.L. 100-510, 102 Stat. 2873

In October 1988, the Academic Research Facilities Modernization Act was signed into law. It resulted from a number of legislative initiatives to deal with research facilities modernization. The Act required NSF to establish and carry out an Academic Research Facilities Modernization Program and to submit a report to the Congress. That report, "Modernizing Academic Research Facilities: A Comprehensive Plan" (NSF 89-61) was submitted in August of 1989.

National Science Foundation Program

The NSF Academic Research Facilities Modernization Program, established in response to P.L. 100-510, is a competitive grants program for the repair, renovation, and, in exceptional cases, replacement of general academic research facilities. The program is structured so that not only major research institutions but also other universities, four-year colleges and minority institutions receive support. Congress provided an authorization for the program of nearly $900 million over a five year period. Approximately $19.6 million was appropriated for the program in FY 1990 and approximately $20.5 million in FY 1991. Following merit review of the 425 proposals requesting $320 million which were submitted in response to an NSF program solicitation, NSF recently announced 78 awards in the amount of $39 million to institutions in 37 states. Under cost-sharing arrangements, these institutions agreed to provide an additional $61 million from institutional, state, and other resources for a total program effort of $100 million. No funds were requested for this program in the Administration's FY 1992 budget.

Department of Agriculture Program

For FY 1992, $25 million is included in the Department of Agriculture (USDA) budget for a new competitive buildings and facilities program associated with research supported by the USDA National Research Initiative (NRI). This research facilities activity, which requires full matching by recipient institutions using non-Federal funds, is slated to increase at a level that is equal to 20% of the NRI program, provided that funds are appropriated on a non-earmarked basis.

SURVEYS OF INSTITUTIONAL NEEDS

Responding to direction by the Congress to identify and assess research facilities needs of colleges and universities, NSF has conducted biennial surveys and issued reports based on those surveys. In response to these recent surveys and other assessments, institutions have indicated that academic research facilities have deteriorated and that there is a need to repair, renovate, and modernize them as well as to construct new ones. Factors identified by institutions as contributing to the research facilities problems on their individual campuses include:

- The rapid changes and advancements in science and research;
- The high cost of research facilities and support space;
- The impact of regulatory and other requirements on building standards;
- The cost of upgrading older buildings and facilities, many of which are structurally inflexible and obsolete; and
- Chronic underfunding due to competing priorities.

Colleges and universities have indicated that, based on their assessments, existing research facilities are often inadequate or obsolete and frequently do not meet current health, safety, and other standards. Colleges and universities reported that 39 percent of their research space requires repair and renovation, including 16 percent which requires major repair or renovation.

Table I. Trends in Deferral of Needed Academic Research Facilities Capital Projects: 1988 to 1990

Type of Capital Project	Survey Year 1988 (Dollars in Billions)	Survey Year 1990 (Dollars in Billions)
NEW CONSTRUCTION		
Needed at Time of Survey	\$ 8.1	\$10.6
Planned for Two Years Following Survey	- \$ 2.3	- \$ 2.6
Deferred	\$ 5.8	\$ 8.0
REPAIR/RENOVATION		
Needed at Time of Survey	\$ 3.5	\$ 5.0
Planned for Two Years Following Survey	- \$ 0.8	- \$ 1.0
Deferred	\$ 2.8	\$ 4.0
CAPITAL PROJECTS, TOTAL		
Needed at Time of Survey	\$11.6	\$15.6
Planned for Two Years Following Survey	- \$ 3.0	- \$ 3.6
Deferred	\$ 8.6	\$12.0

SOURCE: NSF SRS (NSF 90-318)
(Institutional Responses to Survey)

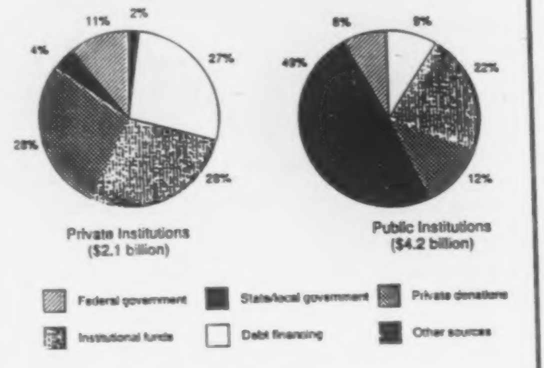
As shown in Table I, colleges and universities indicated in 1990 that they believed they had a need of $5.0 billion for repair and renovation of existing academic research facilities and an additional $10.6 billion for the new construction of research facilities. Planned expenditures for repair and renovation over the succeeding two years were $1.0 billion. Comparable figures reported for new construction show planned projects totalling $2.6 billion.

SOURCES OF CAPITAL PROJECT SUPPORT

A review of the sources of capital project funds for research facilities begun in 1986-1989 shows quite different patterns of funding for private and public institutions (Figure 1). State and local governments provided 49% of all funds for public institutions and 4% for private institutions. Debt financing, conversely, accounted for 9% of funds at the public institutions and 27% at private ones. It should be noted that debt financing by private institutions is becoming increasingly affected by the 1986 Federal Tax Reform Act which established a $150 million cap on the tax-exempt bonds private institutions are allowed to issue. By 1990, 19 of the 30 private institutions that are among the top 100 R&D performers had reached the cap and several more are expected to reach the cap soon. Private donations, which are particularly important to private institutions (28% of capital project funds for those institutions) tend to be more difficult to obtain for repair and restoration projects than for new construction. Institutional funds, which include revenues derived as indirect costs from research grants, account for 22% of research facilities capital projects funding in public institutions and 28% in private institutions.

The Federal government directly provided less than 10% of the funds for capital projects for academic research facilities. For new construction, the Federal government provided less than 15% of the total; for repair and renovation, about 6%.

Figure 1. Sources of Funds for Research Facilities Capital Projects Begun in 1986 - 1989



SOURCE: National Science Foundation, SRS

FEDERAL FUNDING LEVELS

In 1989, the Federal government expended an overall total of over $61 billion for the conduct of R&D. Almost $9 billion, or approximately 14% of that amount, went to colleges and universities. Six agencies (HHS, DOD, NSF, DOE, NASA, and USDA) provided over 95 percent of the Federal obligations.

Direct Funding for "R&D Plant"

In FY 1989, the Federal government expended over $2 billion for R&D plant of which colleges and universities received approximately $200 million (10%) of that total (see Table II). "R&D Plant" as reported by the agencies includes acquisition, construction, or major repairs to equipment and facilities, or land used for R&D. The figure includes fixed equipment such as reactors, wind tunnels, and particle accelerators, but does not include moveable equipment such as spectrometers or microscopes. Much of the Federal funding for R&D plant is directed toward major, highly specialized facilities and research equipment but exact figures are not available.

Figure 2 shows that from the mid 1960's to the early 1980's Federal obligations for R&D plant at colleges and universities, measured in constant dollars, declined. In FY 1989, approximately $205 million was directly provided to universities and colleges by agencies for R&D plant.

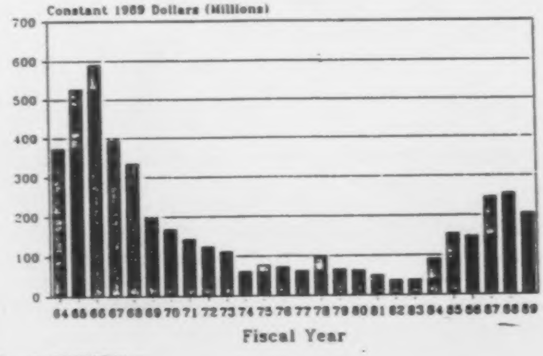
Table II. Total Direct Federal Obligations for R&D Plant and Amount and Fraction at Universities and Colleges, Fiscal Years 1982-1989

[Current Year Dollars in Millions]

FY	Total Obligations	Universities and Colleges Amount	% of Total
1982	$1,390	$30	2.2
1983	1,298	32	2.5
1984	1,787	78	4.4
1985	1,821	136	7.5
1986	1,539	133	8.6
1987	1,846	230	12.5
1988	2,057	246	12.0
1989	2,165	205	9.5

SOURCE: NSF, SRS. Federal Funds for Research and Development.

Figure 2. Direct Federal Obligations for R&D Plant at Universities and Colleges: FY64-89



Source: NSF STIA/SRS

As shown in Table III, two agencies, DOE and USDA, provided nearly 78% of this amount. Much of the growth in Federal funding of R&D plant at colleges and universities since 1984 has resulted from increased Congressional earmarking of appropriations, especially for the Department of Energy and the Department of Agriculture.

Table III. Direct Federal Obligations for R&D Plant at Universities and Colleges, by Agency. Fiscal Years 1982-1989

[Dollars in Millions]

FY	Total	DOE	NASA	DOD	NSF	USDA	HHS	Other
1982	$30	$19	-	$6	-	-	$5	$0
1983	32	19	-	-	-	9	2	2
1984	78	29	-	-	37	10	1	1
1985	136	78	-	-	39	10	7	2
1986	133	72	-	-	22	9	6	24
1987	230	113	-	-	23	65	4	25
1988	246	146	-	-	26	68	-	6
1989	205	129	-	-	21	31	22	2

SOURCE: NSF, SRS. Federal Funds for Research and Development.

For FY 1991, agency projections, prior to earmarks, were that $133 million would be available for R&D plant at academic institutions. OSTP has estimated that Congressional earmarks for research facilities for FY 1991 total almost $276 million, with the largest amounts having been added to the Agriculture, Energy, Defense, and GSA budgets.

Indirect Cost Recovery

In addition to direct obligations to academic institutions for R&D plant, Federal agencies also provide support indirectly through indirect cost recovery under research project awards. Approximately $200 million was provided in FY 1988 through charges for recovery of depreciation and use allowance on research buildings and equipment. Based on estimates of Federal funding for academic R&D in FY 1991, it can be estimated that approximately $236 million will be recovered for these purposes in FY 1991. Such funds would be available for new construction, renovation, and instrumentation.

SUMMARY

The foregoing estimates indicate that about $650 million in total is available in FY 1991 for research facilities at academic institutions. Of this amount, the items in the $133 million projected for R&D plant have generally received full review in the Executive and Congressional budget process and the estimated $236 million in indirect cost recoveries is based on projects that have gone through merit review processes. The items in the $276 million of Congressional earmarks, on the other hand, have not received the same scrutiny and their priority relative to other needs and opportunities in the Nation's research programs is unclear.

NATIONAL SCIENCE FOUNDATION

STATEMENT OF DR. WALTER MASSEY, DIRECTOR

ACCOMPANIED BY:

DR. FREDERICK M. BERNTHAL, DEPUTY DIRECTOR
SANDRA D. TOYE, CONTROLLER
DR. LUTHER WILLIAMS, ASSISTANT DIRECTOR, EDUCATION AND HUMAN RESOURCES
DR. KARL WILLENBROCK, ASSISTANT DIRECTOR FOR SCIENTIFIC, TECHNOLOGICAL AND INTERNATIONAL AFFAIRS
DR. CHARLES BROWNSTEIN, ACTING ASSISTANT DIRECTOR, COMPUTER AND INFORMATION SCIENCE AND ENGINEERING

INTRODUCTORY REMARKS OF SENATOR MIKULSKI

Senator MIKULSKI. We are now going to hear from the National Science Foundation, the new Director, Dr. Walter Massey. And I want to restate how pleased we are that you have assumed the position of the Director of the National Science Foundation.

Doctor, this subcommittee looks forward to a fruitful relationship with you. We appreciated your testimony yesterday at the hearing on math and science education and for returning to discuss your agency's appropriations for next year.

We note that the NSF has requested an increase of $406 million, or about 17.5 percent. This increase would bring the agency to a total budget of $2.7 billion. These funds support our national research effort across nearly all disciplines and are critical for improving science and mathematics education, as well as the pipeline for mathematicians and scientists to join our work force. With such large increases requested, it will be important to understand how we prioritize, the needs of the agency, so that we can be sure that we are clear on a must-do list for the National Science Foundation.

So, why don't you just tell us your needs, and make your presentation in any way you would like.

Dr. MASSEY. Thank you very much, Madam Chair.

SUMMARY OF STATEMENT

I have submitted a written document in some depth, so I will just summarize some of the many points, if that is appropriate.

I also believe you probably know my colleagues who have joined me, the Deputy Director, Dr. Fred Bernthal, and Ms. Sandra Toye, the Controller.

It is a pleasure to be back again before the subcommittee. Yesterday, which, as you noted, was the second full day of National Science and Technology Week, we discussed with the subcommittee the subject of math and science education. Today, as we continue this week's special focus on research and education, I would like to discuss the rest of the Foundation's proposals for next year.

Our budget is not simply a request for more funds; it is an expression of the Foundation's commitment to invest the resources entrusted to it in a manner most beneficial to society.

Viewed in this light, NSF's responsibilities are considerable. Our Nation is facing a number of significant challenges, including international competitiveness, global change, the environment, education, and others. These diverse challenges will require new knowledge created through research and education, as well as the effective application of what we learn. Furthermore, solutions will often require close collaboration among industries, universities, and the Federal and State governments. In each of these respects, the National Science Foundation can provide significant and lasting contributions.

NSF contributes to these strategic activities in a number of ways: by emphasizing the commitment to excellence in the programs developed and the projects supported; by developing human resources, broadening participation in education and research, and improving science and engineering education; and by strengthening the science and engineering research base and infrastructure.

A few words about the budget. I did not participate in the development of this budget, but having been on board since early March, I am very pleased with the balance and the priorities contained within the proposals for fiscal year 1992. The NSF budget requests $2.72 billion, a 17.5 percent increase over the 1991 level. This increase reaffirms the goal established by the President and supported by Congress to double the Foundation's budget by 1994.

Since we have discussed education and human resources in yesterday's hearings, I will only touch briefly on that area. The Foundation's programs in education and human resources represent the fastest growing portion of the budget. We propose to increase support for education and human resources development by 23 percent in fiscal year 1992, bringing its total effort to $456 million across all directorates. And within this total, there is a request of $390 million for the education and human resources directorate itself, which is an increase of 21 percent over the fiscal year 1991 level.

STATEWIDE SYSTEMIC INITIATIVE

The Foundation will also emphasize precollege teacher preparation and enhancement activities through a significant expansion of the statewide systemic initiative. In the undergraduate and graduate area, we are helping to enhance the linkages that exist between research and education. These two activities are not distinct, of course, but together form the basis for developing and applying science and technology to society's needs.

Our research programs are designed to encourage participation by undergraduate, graduate, and postgraduate students. At the same time, the Foundation's educational activities at all levels clearly benefit from the knowledge and experience that comes from performing frontier research and also from efforts to increase the active involvement of scientists and engineers in the educational process.

RESEARCH AND RELATED ACTIVITIES

In research and related activities, we are attempting to strengthen the Nation's research infrastructure. The Foundation is requesting nearly $2 billion for research and related activities. A major increase of 12 percent is aimed primarily at individual investigators and small research groups. In this area and with these resources, we expect to support roughly 29,000 scientists and postdoctoral students. In addition, we intend to augment the capabilities of the existing research centers in 1992, although we will not start any new centers.

Next year will mark the beginning of several new research initiatives, some of which Dr. Bromley has already alluded to. For example, the NSF will begin a new emphasis on high-performance computing and communications. This interagency initiative will make computing resources more accessible to researchers and educators across the Nation via a high-speed, high-volume computer network. In addition, the high-performance computing and communications initiative will also have important implications for improving economic competitiveness, as well as science and engineering education.

GLOBAL CHANGE RESEARCH PROGRAM

The Foundation proposed to expand support for the U.S. Global Change Research Program, another interagency FCCSET initiative. This program will enable researchers to better understand and predict global change as well as its economic and human impacts. Support for global change research we hope will increase by 37 percent to $119 million in fiscal year 1992.

MATERIALS SYNTHESIS AND PROCESSING

An initiative within the agency is in the area of materials synthesis and processing. Materials are, of course, the building blocks for the critical technologies of the future that you discussed earlier, including semiconductors, superconductors, photonic materials, advanced ceramics, and biomolecular materials. This initiative will total $84 million in 1992, a 42-percent increase over 1991.

On another level, we are moving to support the substantial advancement of our understanding of the universe and its basic physical principles by requesting $40 million to begin construction of the first of-two 8-meter optical infrared telescopes and the Laser Interferometer Gravitational Wave Observatory [LIGO]. These are very exciting and important initiatives and rightly deserve our special attention at the National Science Foundation. At the same time, however, we must not lose sight of the fact that the health of our research and education enterprise is dependent upon constant investment and support for the full range of disciplines that constitute the knowledge base which is the foundation for future discovery and innovation.

INSTRUMENTATION

Research, however, requires not only the talents and skills of people, but also the tools to enable them to conduct cutting edge research. Instrumentation is therefore a high priority in this year's budget request. We are requesting $50 million for a new Presidential initiative for academic research instrumentation. This effort will provide the kind of large and expensive research equipment that is needed for America's academic laboratories. This initiative, together with other programs, including $23 million for undergraduate instrumentation and laboratory improvement, will bring the Foundation's total support for scientific equipment and instrumentation to almost $400 million for fiscal year 1992, a 35-percent increase over fiscal year 1991.

ANTARCTIC PROGRAM

For the Antarctic, we are requesting $193 million for research and logistical activities associated with the U.S. Antarctic program. A major component of this request is the multi-year safety, environment, and health initiative which will increase by 24 percent to $31 million in fiscal year 1992. In addition, we propose to expand the Antarctic research program by $3 million to $22 million. And finally, the request includes funds for the new research vessel, R/V *Nathaniel B. Palmer.*

Despite the increases proposed in the budget, the fact remains that demands from the research and education enterprise continue to outstrip our ability to provide adequate support. Therefore, I believe we should concentrate the resources we have on those activities—research, instrumentation, equipment, and major specialized facilities—that respond to the most important and pressing needs of the research community and where they can have the most meaningful and immediate impact. It is for this reason that the Foundation is not requesting funds in fiscal year 1992 for the Research Facilities Modernization Program.

STAFF RESOURCES

In recent years, we have witnessed a dramatic growth in the agency's responsibilities, for which we are grateful. However, this growth, as welcome as it has been, has put a severe strain on the Foundation's own resources. Staff resources have remained basically level over the past decade, while the number of fully reviewed proposals has increased by over 40 percent during the same period of time. The agency has been able to boost productivity by investing in new technologies, such as computers, electronic mail, and the like, but we are now reaching the limits of what technology can do without additional human resources. Therefore, the fiscal year 1992 request seeks to remedy previously deferred, yet now essential, staffing and related support needs. Consequently, we are requesting an increase of 28 FTE's, bringing the request to a total of 1,230. This modest increase, I believe, is a necessary step toward bringing staff and workload into a better balance.

ECONOMIC COMPETITION

The role of research and education in economic competitiveness has come up quite often in past few years, as it did in Dr. Bromley's testimony. You referred to the report of the Council on Competitiveness, a private sector organization, and their recently released report, "Gaining New Ground." In that report, I'm sure you've noted, industrial leaders from across the country identified a number of generic technologies that will drive U.S. productivity and economic growth in the next decade.

What interested me is they identified four factors that contribute to competitive advantage. The first was close ties between basic research and generic technology development. The second was active individual innovation. The third was strong Government support, and fourth, a high level of private R&D funding. This report emphasizes, and I think reemphasizes, the need for close links between research conducted at colleges and universities and the private sectors and the need to generate strong support for bettering our human resources in order to contribute to an international competitiveness.

The United States is clearly the world leader now in basic research and in graduate education. It is imperative, in my opinion, that we maintain this leadership in these areas, but that we also learn to exploit more skillfully and expeditiously the opportunities to realize the practical benefits of our investments in this research.

Unfortunately, as you have pointed out, much of the recent attention focused on research has been negative. Questions about indirect costs and scientific fraud have become front page news. These issues are serious and they deserve our attention. They do little to bolster the public's appreciation for the critical role colleges and universities play in research and education. However, as you have pointed out, these problems should not be allowed to detract from the vital contributions made by our colleges and universities toward the well-being of the country through the people educated and trained and the new knowledge generated and developed at these institutions.

This subcommittee, of course, has been very important in all of these areas.

FEDERAL INVESTMENT IN R&D

While the Foundation represents only 3 percent of the total Federal investment in research and development, it is a major player in some of the most important R&D initiatives contained within the President's budget. As I have noted, in high-performance computing, NSF represents one-third of the interagency initiative, and in math and science education, as we heard yesterday, we represent almost one-quarter of the total Federal effort.

Your subcommittee plays an equally critical role in supporting these initiatives. Within your jurisdiction is 77 percent of the U.S. Global Change Research Program, 45 percent of the high-performance computing and communications initiative, and almost one-third of the Federal effort in the area of math and science education.

Furthermore, this subcommittee is in a unique position to impact the Nation's economic competitiveness. The panel provides over one-third of all Federal support for civilian research and development, 35 percent of Federal support for civilian basic research, and almost three-quarters of total Federal support for basic academic research in the physical sciences, social sciences, and engineering, areas of great importance to the Foundation.

In conclusion, Madam Chair, I would like to say that we believe these areas for which we are requesting the $2.7 billion are sound investments in the future. They are investments in the people and the knowledge base that will enable our Nation to respond to the challenges facing it today. With your support, that request and the benefits it will bring to the country can become a reality.

Thank you, Madam Chair. I would be pleased to answer questions that you or your colleagues may wish to ask, along with my colleagues who have joined me here today.

[The statement follows:]

STATEMENT OF DR. WALTER MASSEY

Madam Chair, members of the Subcommittee, it is a pleasure to appear before you today. I am glad to be back with you today and to have this chance to testify on the NSF Budget Request. I look forward to working closely with you to maintain your strong support for the Foundation.

As we begin the process of shaping next year's budget, I wish to state that I strongly believe in one important principle—namely, that this budget document is not simply a request for more funds, but it is also an expression of the Foundation's commitment to invest the resources entrusted to it in a manner most beneficial to society. President John Kennedy stated this principle very clearly in his address to the National Academy of Sciences on its one-hundredth anniversary: ". . . scientists alone can establish the objectives of their research, but society, in extending support for science, must take account of its own needs."

Viewed in this light, NSF's responsibilities are considerable. Our Nation is facing a number of significant challenges in many different areas, including economic competitiveness, global change, the environment, science education, and others. Finding solutions to these problems will require continuing investments in science, technology, and human resources. NSF is committed to helping to find these solutions by strengthening the research base and infrastructure and improving science education and opportunities for all students.

OVERVIEW OF THE FISCAL YEAR 1992 BUDGET REQUEST

The National Science Foundation's budget request reflects this commitment. NSF proposes to invest in Fiscal Year 1992 a total of $2.72 billion, a 17.5% increase over the FY 1991 level. This increase reaffirms the goal established by the President and supported by Congress to double the Foundation's budget by FY 1994.

Education and human resources.—The Foundation's mission to strengthen education and human resources represents the fastest growing portion of NSF's budget. As part of an interagency mathematics and science education initiative coordinated through the Federal Coordinating Council for Science, Engineering, and Technology (FCCSET), NSF is proposing to increase its support for education and human resource development by 23% in FY 1992, bringing its total effort to $456 million. (This includes the educational activities supported through the research activities.)

Significant, double-digit increases are proposed for every educational level, from elementary school through graduate school and beyond. With these resources, NSF would be able to support nearly 60,000 graduate students, undergraduates, and precollege teachers and students, over 7,000 more people than in FY 1991.

Included among these efforts are programs to encourage more representatives of underrepresented groups—women, minorities, and disabled students—to enter scientific and technical fields. These groups represent increasingly significant portions of the Nation's workforce, yet historically they have had very low participation rates in the sciences. NSF is requesting almost $100 million for these efforts in FY 1992, roughly a 25% increase above the FY 1991 level. This includes $10 million to continue the new Alliances for Minority Participation (AMP) program, which will generate comprehensive, coordinated approaches to raise both the numbers and skill levels of minority students receiving baccalaureate degrees in the sciences.

The Education and Human Resources Activity would itself increase by 21%, to $390 million in FY 1992. NSF will be working more closely with state governments and educational agencies to improve educational quality and achievement for all students. NSF's Statewide Systemic Initiative (SSI) program, which will make its first awards in FY 1991, will help states develop comprehensive, coordinated reforms to improve precollege science education. NSF proposes to increase SSI by nearly 50% to $31 million in FY 1992.

NSF is helping to strengthen the natural linkages that exist between research and education. These two activities are not distinct, but together form the basis for developing and applying science and technology to society's needs. Research programs are designed to encourage participation by undergraduate, graduate, and post-graduate students, while educational activities at all levels, including precollege, clearly benefit from the knowledge and experience created by frontier research.

Research and related activities.—NSF is committed to strengthening the Nation's research base and scientific infrastructure. NSF is requesting a 15.9% increase in its support for research and scientific equipment, bringing the total to $1.96 billion in FY 1992. Double-digit increases are requested for every research activity.

These increases are aimed primarily at individual investigators and small researcher groups. With these resources, NSF would be able to support roughly 29,000 scientists and postdoctoral students, a 12% increase from the preceding year. NSF also plans to augment the research and educational capabilities of existing Science and Technology Centers and Engineering Research Centers but does not intend to start any new centers in FY 1992.

Next year will mark the beginning of several new research initiatives. Working with other federal agencies through the FCCSET process, NSF will begin a new emphasis on High Performance Computing and Communications. This initiative will greatly improve supercomputing and communications technology, while making computing resources more accessible to researchers and educators across the Nation via a high-speed, high-volume computer network. This initiative has tremendous and direct implications for improving not only America's education and research capabilities but also industrial competitiveness. NSF's portion of this interagency computing initiative will be $213 million in FY 1992, one-third of the total federal effort.

NSF also proposes to expand its support for the U.S. Global Change Research Program, another interagency initiative coordinated through FCCSET. This research will enable scientists to better understand and predict global change, including its economic and human impacts. NSF's support for global change research will increase by 36% to $119 million in FY 1992.

NSF will begin a new initiative in Materials Synthesis and Processing as well. Materials undergird the critical technologies of the future, including semiconductors, superconductors, photonics, advanced ceramics, and biomolecular materials. This initiative, which will build on an existing research base, will total $84 million in FY 1992, a 42% increase over FY 1991.

NSF is also requesting a total of $40 million to continue construction of the first of two 8-meter optical/infrared telescopes and to begin construction of the Laser Interferometer Gravitational Wave Observatory (LIGO). Both projects will substantially advance our understanding of the universe and its basic physical principles.

Finally, NSF will continue to work with certain states to improve their participation in the science and technology enterprise. NSF's Experimental Program to Stimulate Competitive Research (EPSCoR) is designed to assist those states that have been less competitive in obtaining federal R&D support. NSF proposes to increase EPSCoR funding by 36% to $15 million in FY 1992 in order to stimulate state efforts to improve science and engineering education as well as academic research.

Academic research instrumentation.—Research requires not only the talents and skills of scientists and engineers, but also the tools to enable them to conduct cutting-edge research. Scientific equipment and instrumentation are thus very high priorities.

NSF is requesting $50 million to initiate a Presidential initiative for academic research instrumentation. NSF's current funding mechanisms are insufficient to provide the large and expensive research equipment needed to retool America's academic laboratories and to advance their education and research efforts. This program will make awards in the range of $100,000 to $2 million and will require at least a 50% match from non-federal sources.

This initiative, together with NSF's traditional programs for equipment and instrumentation, would bring the Foundation's total support for equipment and instrumentation to $392 million in FY 1992, a 35% increase over the FY 1991 level.

Antarctica.—NSF is requesting $193 million, a 10.3% increase, for research and logistical activities associated with the U.S. Antarctic Program. A major component of this request is the multi-year Safety, Environment, and Health Initiative (SEH), which will increase by 24% to $31 million in FY 1992. In addition, NSF proposes to expand the U.S. Antarctic Research Program by $3 million to $22 million. Finally, the request includes funds for the new research vessel, the *Nathaniel O. Palmer*.

Research facilities modernization.—While the budgetary proposals above are impressive, demands from universities, schools, and industries continue to outstrip the Foundation's ability to provide adequate support. Given the scarcity of resources, the Foundation believes it should concentrate its efforts on activities that will be of the most immediate and substantial benefit to the research community. Such activities are investigator support, instrumentation, and major specialized equipment. Thus, the Foundation is not requesting any funds in FY 1992 for the Academic Research Facilities Modernization Program.

Salaries and expenses.—Recent years have witnessed a dramatic growth in NSF's responsibilities, programs, and resources. The Foundation views its activities as important investments in the future and is as committed to maintaining excellence in its internal operations as it is to supporting excellence in the research and educational communities.

This growth—as welcome as it has been—has put a severe strain on the Foundation's own resources. Staff resources have remained essentially static over the past decade, while the number of fully reviewed proposals has increased by over 40% in the past decade. NSF has been able to boost productivity by investing in new technologies, such as computers and electronic mail. However, we are reaching the limits of what technology can do without additional human resources. In order for the Foundation to carry out its responsibilities to ensure the appropriate and efficient use of its resources, staff resources must be increased. This FY 1992 Request addresses and remedies previously deferred, yet now essential staffing and related support needs.

Consequently, NSF is requesting an increase in staff of 28 FTE, bringing this total to 1,230. Of this amount, 18 FTE would be dedicated to the Education and Human Resources Activity, which has been experiencing the most rapid growth within NSF. The modest increase in FTE requested in FY 1992 is a necessary step toward bringing staff and workload into a better balance.

Within the salaries and expenses account, NSF is also requesting $7 million to begin the planned relocation of its headquarters.

Inspector general.—NSF is requesting a $0.5 million increase to $3.5 million to augment the audit and investigations operations of the Office of Inspector General.

DETAILED DISCUSSION OF FISCAL YEAR 1992 PROGRAM BUDGET

The FY 1992 Budget Request reflects the Foundation's top programmatic priorities: education and human resources; the research base and instrumentation; and competitiveness. It responds to today's many new opportunities as well as to new challenges.

EDUCATION AND DEVELOPMENT OF HUMAN RESOURCES

The education of future scientists and engineers and of a technically competent workforce is critical for the development of new technologies, products, and an improved competitive posture. The FY 1992 Request responds to national concerns in this area with an increase of 19% for programs across the Foundation, and reflects a strategic framework for a significant and balanced investment in education.

NSF serves as a catalyst in the area of science and engineering education—fostering connections among institutions, disseminating knowledge, and bringing together talented people. Foundation programs are designed to address both the qualitative and quantitative deficiencies manifest at all critical points in the educational process. While these efforts occur in programs funded throughout the Foundation, the Education and Human Resources Activity serves as a focal point for these efforts.

The Foundation is active at all levels of education: precollege, undergraduate, graduate, and postgraduate (Figure 1). The Foundation's programs in these areas are coordinated through the FCCSET Committee on Education and Human Resources. Such coordination is intended to optimize the use of limited federal resources, while drawing on the specialized expertise within agencies. The Foundation activities support the plan presented in the FCCSET report "By the Year 2000: First in the World."

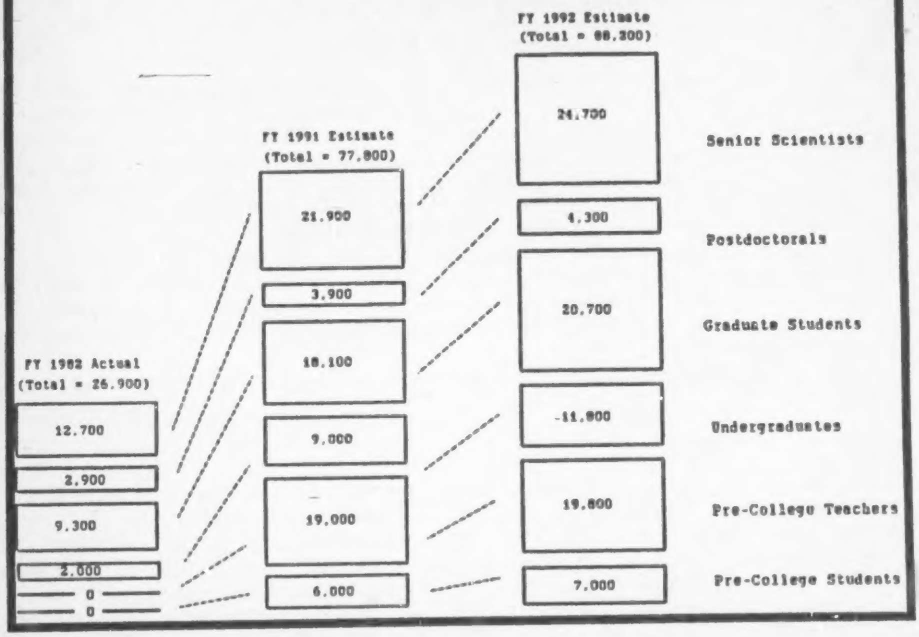


Figure 1.

National Science Foundation
Support for Science & Engineering Personnel

Foundation programs also directly contribute to the National Education Goals for mathematics and science education developed which resulted from the President's Education Summit in 1989:

—By the year 2000, every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our modern economy.

—By the year 2000, U.S. students will be first in the world in science and mathematics achievement.

—By the year 2000, every adult American will . . . possess the knowledge and skills necessary to compete in a global economy.

Highlights of the Foundation's FY 1992 Request for education and the development of human resources include:

PRECOLLEGE PROGRAMS

Pre-college science and mathematics courses must meet the future needs of all students: those who will perform technical jobs crucial to the Nation's economy as well as those who will become professional scientists and engineers; and all of us who as citizens must make decisions on the science- and technology-based issues facing society. This commitment is built into all the Foundation's precollege programs.

Precollege programs are the largest component of NSF's efforts in education, training, and human resources development, totalling over $250 million in FY 1992 and exceeding the levels of the 1960's. Programs focus on improving the effectiveness of elementary and secondary school science and mathematics instruction. NSF provides leadership and expertise in this area, and serves as a catalyst in our national effort to introduce change and improvements in our educational institutions.

Our success in improving the performance of our students depends on contributions from all institutions, state and Federal, public and private. It also depends on a commitment to excellence on the part of every parent, student, and teacher. The Foundation believes that cooperation among major institutions in these efforts will play a critical role in meeting future challenges. As part of these efforts, the Statewide Systemic Initiatives program, an effort to develop federal-state cooperation in restructuring precollege education, will double its funding.

Programs in Teacher Enhancement and Teacher Preparation will develop innovative and exemplary programs for science and mathematics teachers. Efforts to develop resource and curriculum materials for pre-service and in-service use to promote more effective teaching practices will be expanded.

The Foundation will support approximately 7,000 pre-college students and almost 20,000 pre-college teachers in FY 1992.

UNDERGRADUATE PROGRAMS

Undergraduate programs will total $132 million in FY 1992. In particular, Course and Curriculum Development programs will be expanded in an effort to revitalize introductory-level courses in all fields of science, engineering and mathematics. NSF will stress the importance of introductory, undergraduate courses to the preparation of future elementary and secondary school science and mathematics teachers. A separate, targeted calculus effort will continue through FY 1992, emphasizing dissemination of promising approaches which have been developed.

The Research Experiences for Undergraduates program, which provides support for undergraduates to actively participate in research projects, will receive additional emphasis in FY 1992. The Foundation is particularly interested in increasing the participation in research of underrepresented groups (i.e. women, minorities and persons with disabilities).

The Foundation will provide support to almost 12,000 undergraduate students in FY 1992.

GRADUATE PROGRAMS

The Graduate Fellowships, Minority Graduate Fellowships, and Graduate Fellowships for Women in Engineering programs will continue at the combined level of 1,100 new fellowship offers in FY 1992. The selection of outstanding students in all fields of science and engineering to be Fellows helps prepare the Nation to face the research challenges of the future. Funding for graduate research assistants within the disciplinary awards will increase, as will support for post-doctoral researchers.

The Foundation will support about 25,000 graduate students and post-doctorates in FY 1992.

BROADENING THE PARTICIPATION OF UNDERREPRESENTED GROUPS

Over the next decade, underrepresented groups in the science and engineering fields (i.e. women, minorities and persons with disabilities) will represent an increasing proportion of the nation's potential workforce. At all levels of education and research, NSF has special programs for minority institutions and for women, minority and disabled students and investigators to increase the participation and performance of these groups in future scientific and engineering efforts. The FY 1992 Request includes approximately $100 million for these efforts, roughly 25% above the FY 1991 level. In addition to existing programs to assist underrepresented groups such as Facilitation Awards for the Handicapped, Research Improvement in Minority Institutions, and Graduate Engineering Education for Women, Minorities, and Persons with Disabilities, the FY 1992 Request includes:

—The Alliances for Minority Participation (AMP) program will generate a comprehensive, coordinated approach to increase the number and to strengthen the skills of minority students receiving baccalaureate degrees and subsequently beginning graduate study in science, engineering and mathematics. AMP aims to stimulate the establishment of broad-based regional and national alliances of academic institutions, school districts, state and local governments, and the private sector that are dedicated to improvement of undergraduate education.

—Faculty Awards for Women permit recognition of women scientists, strengthen their capabilities for research and teaching, increase their visibility as effective role models, and accelerate their movement to senior-level ranks in science and engineering.

—The Experimental Program to Stimulate Competitive Research (EPSCoR) responds to NSF's mandate to insure the health of science and engineering nationwide by assisting states that have been relatively less competitive in obtaining Federal R&D support. EPSCoR will receive a 36% increase in FY 1992 to initiate an Advanced Development Program to institute comprehensive development efforts in up to ten states.

RESEARCH AND INSTRUMENTATION

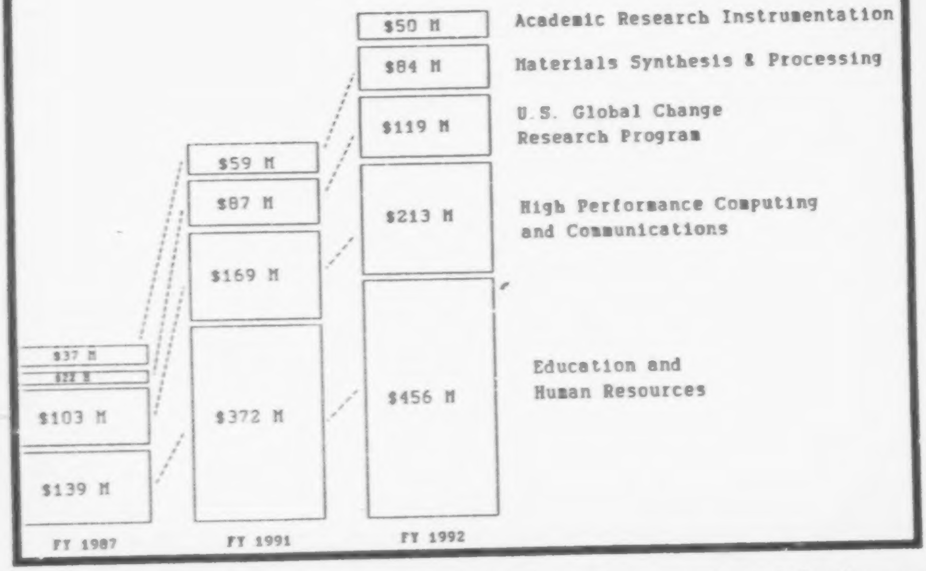
Support for research and infrastructure accounts for approximately 75% of the FY 1992 Budget Request. These research and instrumentation programs will make significant contributions to improving the Nation's scientific and technical capabilities. The FY 1992 Budget Request is an increase of almost 17% over FY 1991.

The Request emphasizes support for individual Investigators, primarily at the Nation's colleges and universities, and the research infrastructure required to meet their needs. Individual investigators continue to serve as the indispensable backbone of the nation's research system. The Request includes continued growth for forefront, high-priority areas such as materials research, biodiversity, plant sciences, global change research, computational sciences and high performance computing, as well as support for basic disciplinary research. Support for investigator-initiated disciplinary research and for infrastructure increases to $1.28 billion in FY 1992, an 18% increase over the FY 1991 level.

The FY 1992 Budget Request for NSF includes programs to develop further the nation's opportunities. Initiatives in High Performance Computing and Communications, Materials Synthesis and Processing, and the U.S. Global Change Research Program exemplify NSF's role in the national research enterprise. A major initiative in Academic Research Instrumentation will ensure the vital infrastructure needed for the nation's exciting future. Increases for these initiatives and the FCCSET initiative for Education and Human Resources discussed previously are shown below (Figure 2).

Figure 2.

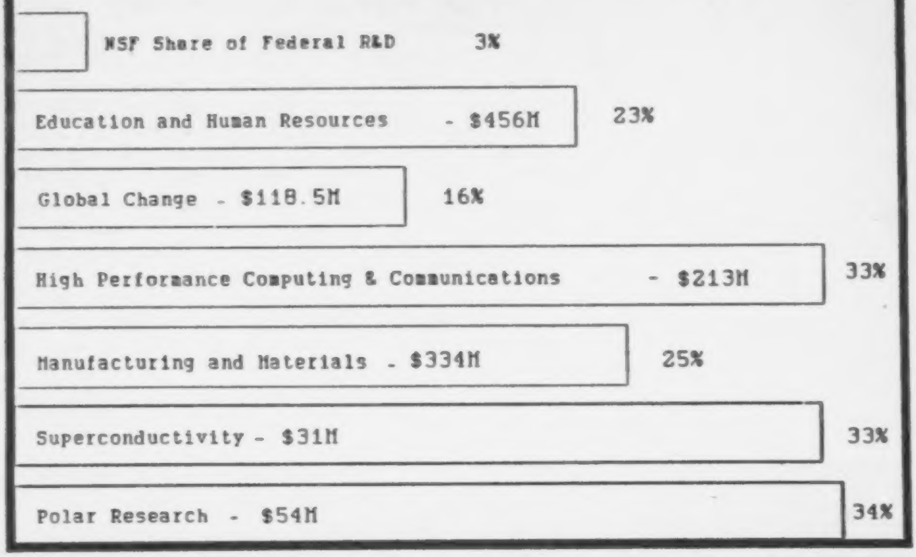
National Science Foundation
FY 1992 Major Initiatives



Although NSF provides only 3% of Federal funds for research and development, it plays a substantial role in several critical high-priority areas (Figure 3). Many of these areas reflect the growing complexity and multi-disciplinary nature of today's research problems, evidenced by increasingly coordinated research, shared data, and common instrumentation and equipment. Highlights include:

Figure 3.

NSF Share of Federal Support
FY 1992 Request



High performance computing and communications.—Progress and productivity in modern research increasingly depends on the management of large, complex databases, the exercise of massive computer models, access to costly or distant computing resources, and communication among scientists and engineers. The Foundation's Request supports this interagency initiative, coordinated through FCCSET, to provide the computing and networking infrastructure for research in all science and engineering disciplines.

The HPCC initiative will sustain U.S. competitiveness by developing the enabling technologies necessary for computing and communications systems and by accelerating technology transfer. It provides for the use of improved computing and communications technologies to contribute to more effective solutions to the major challenges facing the nation.

This initiative will also improve the educational process at all levels by enabling educators to integrate new knowledge and new methods into courses. Students at all levels will be drawn into a wide variety of research and learning experiences as part of the initiative. NSF funding for the HPCC initiative will total $213 million in FY 1992

U.S. Global Change Research Program.—The Foundation's Request supports the FCCSLET Committee on Earth and Environmental Sciences FY 1992 plan to expand the scope and interagency responsibility for this important program. As one of nine federal agencies engaged in this initiative, NSF focuses its support on the basic research necessary to understand, and ultimately predict, future changes in the earth's environment, and the human dimensions associated with these changes. The Foundation's support for this program will total $118.5 million in FY 1992.

Materials synthesis and processing.—A new NSF initiative, totalling $84 million, will strengthen the fundamental sciences and engineering capabilities undergirding the critical technologies of the future, and enhance the abilities of U.S. industry in developing and using next-generation materials and novel processing methods. Potential fields of research include semiconductors, advanced ceramics, photonics, and biomolecular materials. Special attention will be given to individual investigators and small, multidisciplinary research groups.

Academic research instrumentation.—A new $50 million program is designed to improve the research infrastructure by funding the development and acquisition of state-of-the-art instrumentation. This program will support the acquisition of the major modern scientific instruments needed to retool the nation's academic laboratories and advance the nation's research and research training efforts. It will encourage greater accessibility and utilization of instruments, and provide for maintenance and technical support for research instrumentation. Cost sharing of at least 50% from non-Federal sources will be required.

MAJOR RESEARCH EQUIPMENT

The Foundation has long been a source of support for unique, major national facilities such as telescopes, research ships, and supercomputers, as well as for instrumentation integral to research capabilities. The Request continues its commitment to provide individual investigators with access to world-class instrumentation and facilities. Among the highlights are:

—Verification of the existence of gravitational waves and black holes and the measurement of their properties offer the opportunity to open a new window onto the universe. These are the objectives of U.S. scientists designing the Laser Interierometer Gravitational Wave Observatory (LIGO). NSF will begin construction of two identical, but widely separated, detectors in FY 1992 with a request of $23.5 million, for a total estimated cost of $211 million over five years. Two European groups are planning to build complementary detectors of compatible design and costs similar to the LIGO facility. These detectors, working in concert with LIGO, will permit systematic astrophysical observations in the new field of gravitational wave astronomy. Such international cooperation provides a major opportunity to lower national cost by sharing development, construction and operational expenses necessary to begin research in an entirely new field.

—Technological advances in key areas of telescope construction present an opportunity to push telescope performance to new standards of excellence. Construction of two 8-meter optical/infrared telescopes, one each in the northern and southern hemisphere, will be jointly funded by the U.S. and the United Kingdom, with Canada as a third prospective partner. Construction of the first telescope will begin in FY 1992 at a level of $16 million. The project is estimated to take 8 years to complete at a total cost of $176 million, of which the U.S. will provide half.

U.S. ANTARCTIC PROGRAM

The U.S. Antarctic Program, which is managed by the Foundation, supports national goals in the Antarctic: to maintain the Antarctic Treaty; to ensure that the continent continues to be used only for peaceful purposes; to maintain an active and influential presence; to foster cooperative research contributing to the solution of regional and world-wide problems; and to protect the environment.

A major, multi-year Safety, Environment, and Health Initiative (SEH), which began in 1990, continues to expand in 1992 to remedy concerns in these areas. A comprehensive approach to improvements in these areas is necessary to deal with problems that have accumulated and to meet higher standards. The FY 1992 Budget Request includes $31.0 million for the SEH initiative, or an increase of $6.0 million over FY 1991, to fund upgrades of medical facilities, the provision of field safety experts as members of science field parties, and McMurdo Station waste disposal and hazardous waste handling facilities.

COMPETITIVENESS

The ability of this National to compete effectively increasingly depends on a large and continuing investment in the future to educate our citizens and to create new ideas. Highly educated scientists and engineers and a technically competent workforce are essential for the nation's future. Yesterday's knowledge will not be competitive tomorrow, and individuals must continue to learn new skills and new ideas.

Our Nation's competitive posture, our ability to grapple with environmental problems, and our continued progress toward solving other complex economic and social challenges will depend to a very large extent on the vitality of our scientific, technological, and educational enterprises. Through initiatives such as High Performance Computing and Communications and Materials Synthesis and Processing and through ongoing programs including the Industry/University Cooperative Research Centers and Small Business Innovation Research (SBIR), the Foundation continues to stimulate technological development and to support U.S. competitiveness.

RESEARCH CENTERS

NSF maintains its commitment to support research centers, including Engineering Research Centers (ERC's) and Science and Technology Centers (STC's). These centers encourage partnerships between universities, government, and the private sector, promote research on complex, large-scale research problems, and provide students with experience in interactive, multidisciplinary research settings.

In FY 1991 the Foundation plans to fund up to 14 new Science and Technology Centers in fields of science across the Foundation. The 14 proposed centers include participation from 54 universities and colleges in 20 states, four national laboratories and four nonprofit centers.

While the Foundation will not initiate any new STC's or ERC's in FY 1992, NSF will augment funding for its existing centers, particularly for activities for undergraduate students. These efforts will allow existing centers to mature and develop.

CONCLUSION

Last month, the Council on Competitiveness, a private sector organization, released a report entitled "Gaining New Ground: Technology Priorities for America's Future." That report identified five categories of generic technologies that will drive U.S. productivity, economic growth, and competitiveness during the next decade. In some of those areas, the U.S. is losing ground, but in others we remain strong and competitive.

What is the source of the U.S. strength in this area? The Council concluded that America's strong competitive advantage is related to four factors: (1) close ties between basic research and generic technology development; (2) active individual innovation; (3) strong government support; and (4) a high level of private R&D funding.

The Council's report demonstrates the close link between research conducted at colleges and universities and one widely-discussed national need—the need to remain economically competitive. And paramount in our drive to remain competitive is our dependence upon the continued development of our human resources, coupled with a commitment to improve math and science education at all levels.

As we look to the future, we must keep in mind that the United States is clearly the world leader in basic research and graduate education. It is imperative that we maintain our leadership in these areas, while at the same time, more skillfully and expeditiously exploiting opportunities to realize the practical benefits of this research.

Unfortunately, much of the recent attention given to research has been negative. Questions about accountability and openness such as indirect costs, merit review, and scientific fraud have become front page news in many major newspapers. These issues are serious and deserve our attention. They do little to bolster the public's appreciation for the critical role colleges and universities play in research and education. However, these problems should not be allowed to detract from the vital contribution made by our colleges and universities towards the well-being of the country through the people educated and trained and the new knowledge developed at these institutions. Our system of research remains the standard of excellence worldwide.

As you know, NSF, while representing only 3% of the total Federal investment in research and development, is a major player in some of the most important initiatives contained within the President's budget. In High Performance Computing and Communications, NSF represents one third of the interagency program; in education and human resources, NSF represents almost one quarter of the total federal support for math and science education.

But equally important is the role this Subcommittee plays in these and other science and engineering activities through the agencies under its jurisdiction. The Subcommittee is responsible for 77% of funding for the U.S. Global Change Research Program and 45% of the High Performance Computing and Communications initiative. The subcommittee is being asked to provide 28% of the total interagency budget in the critical area of math and science education.

This appropriations subcommittee plays a crucial role in maintaining the Nation's economic competitiveness in other important ways. For example, this Subcommittee provides 32% of the total federal support for civilian research and development; 35% of total federal support for civilian basic research; and almost 75% of the total federal support for basic academic research supported in the physical sciences, social sciences, and engineering.

I mention these facts to highlight the critical role this appropriation subcommittee plays in strengthening the nation's research and development enterprise. At the National Science Foundation, we clearly recognize our responsibility to serve the society that has entrusted us with its resources. The programs and activities described above represent sound investments in the future—in the people and the knowledge base that will enable our Nation to respond to the many challenges today. With your support, that request and the benefits it will bring to our country—can become a reality.

Thank you, Madam Chair. I would be pleased to answer any questions the Subcommittee may have.

INFORMAL SCIENCE EDUCATION

Senator **Mikulski**. Dr. Massey, that was a very comprehensive and meaty testimony.

We also acknowledge that yesterday a good bit of the conversation was on the math and science education, so there will be no need to replicate that conversation. We are going to focus on the other aspects of the National Science Foundation.

However, in the audience are all these people from informal education facilities, or what is known in the line item as informal education. They belong to a group called ASTC, and I'm sure you are familiar with it. In fact, a young lady from Chicago won an award today for her interaction again involving Fermilab. A lot of these folks that you see here that you do not recognize as your own staff——

[Laughter.]

Senator **Mikulski**. Maybe you do not know your own staff yet. You probably wonder why are all these people here and think, I hope she doesn't ask me who they are and how the heck we are paying for them.

Why don't the ASTC people that are in the room hold up their hands.

[A show of hands.]

Senator **Mikulski**. Oh, Ms. Johnson, there you are. She's the Fermilab lady, looking over your shoulder, Dr. Massey.

I promised them this morning that I would ask about your request for the informal education component and how it increased from last year. We promised them that question. They have been sitting here fascinated by these processes. Right?

Dr. **Massey**. I'm fascinated also. It is my first time. [Laughter.]

Well, as you know, I'm very much familiar with ASTC. I was director of the board of trustees of the Museum of Science and Industry in Chicago which has played a leading role in ASTC activities and have been personally involved in a number of the programs that these museums have sponsored around the country.

The request for informal science education activities is $25 million this year. The budget in this area has increased substantially since 1990, going up from $16 million. There is not a request for a large increase in the 1992 budget for that particular line item. But I would like to say something about that, and it relates to a broader issue of how the budget is constructed this year in the education and human resources area.

Many of the activities, such as support for museums and other institutions involved in informal science education, will now be supported under other activities such as the statewide systemic initiative. And this is part of the effort, as you heard from Dr. Williams yesterday, to make the Foundation's programs address more strategic issues in a more comprehensive way by bringing together various institutions and actors that are important to science and engineering education. So that line item does not reflect all of the areas that would be available to support the activities that Fermilab, say, would have.

Senator **Mikulski**. What you are saying is that the line item does not give the true picture of the commitment to supporting these endeavors and, in fact, trying to leverage their impact within school systems.

Dr. **Massey**. You say it much better than I.

Senator **Mikulski**. I see Dr. Williams shaking his head.

Dr. **Massey**. Exactly right, Madam Chair.

Senator **Mikulski**. We are going to follow this particularly as it relates not only to students, but, of course, our priority related to the retooling and the refreshment of teachers themselves.

INDIRECT COSTS

Doctor, let me move on now to the other aspects of the National Science Foundation budget.

One of the questions you heard me ask Dr. Bromley was the issue of indirect cost. And I will tell you we are going to go through indirect cost, research priorities, research infrastructure needs, and then some of the others related to salaries and expenses and so on just so you have a sense of the direction we are going in.

Dr. **Massey**. Thank you very much.

Senator **Mikulski**. The indirect cost is again everything that we discussed with Dr. Bromley. It is a headline issue. It is a focus in Congress now. In reviewing the NSF cost, we note that the National Science Foundation consistently spends only 20 percent of its research funds on indirect costs, while the rate at NIH is closer to 50 percent. We would like to know what your thoughts are on that and does the NSF's lower rate have negative consequences for research institutions? It seems like you are either getting more for your money than, say, NIH, or we are not supporting them adequately. We are trying to get at what we should be doing and trying to see why the disparity. If you can share that with us.

Dr. **Massey**. I will. I may have to call for some assistance here from those who have been involved much longer. But I have reviewed this since I have been at the NSF, because I had the same question.

What the 20 percent shows is the proportion of total NSF awards that go into indirect costs. That is not, as you know, the rate for the individual institutions. It is sort of an amalgamation of the various rates.

The 20 percent at the NSF is due to the fact that some of the programs, such as Presidential Young Investigators, do not pay full indirect costs. They pay 10-percent institutional support cost. So, when one averages over all the programs at the NSF, it results in this rate. I just don't know enough about the NIH to make a more detailed comparison.

We pay, on grants that are funded by us, the full indirect cost requested by the university. We do not audit the universities, of course. The auditing is done by HHS or ONR. So, when the rates are set, we accept those rates as being the ones determined by the Government and pay the rates where they are appropriate.

REVAMPING A-21

Senator **MIKULSKI**. Are you part of the conversation that is going on in the administration on the revamping of the A-21 and the guidelines that will ensue?

Dr. **MASSEY**. Yes; I am; I have been participating with Dr. Bromley in those discussions and with Mr. Hodsell from OMB.

INDIRECT COSTS AND NEW BUILDINGS

Senator **MIKULSKI**. Does the NSF reimbursement for indirect cost have the same impact on facilities modernization that, say, NIH and others have?

When I looked at some of the universities that submitted information on exactly what their indirect cost covers, I saw the pattern, as we indicated earlier, that back in 1982 the administration encouraged a policy of using indirect cost to help pay for the new buildings, new laboratory equipment, and so on. Many actually put their own very clear disciplines on general administration costs, not like supporting the president of the university's housing or his or her transportation.

In the NSF reimbursement, has that also been a major tool for facilities modernization for larger institutions?

Dr. **MASSEY**. The distribution would be exactly the same for the NSF grants or NIH grants at any university because we follow the rates that have already been agreed to. When a university has a rate established for facilities or for depreciation, if a grant comes from the NSF, our indirect cost support would be exactly the same as the NIH's. So, in answer to the question, yes, we would have been part of the effort to fund the depreciation for those buildings at universities just as NIH has at the same universities.

Senator **MIKULSKI**. Well, in a few minutes, we are going to move on to the questions we have related to facilities and laboratory modernization. But it seems that part of the concern we have is that there is no clear policy on what the Federal Government's interaction is with major institutions and smaller institutions on facility and laboratory modernization. And I wonder in the reform conversations if this is being discussed.

Dr. **MASSEY**. Yes; it is.

Senator **MIKULSKI**. In other words, while we fix one thing, we want to make sure we do not break something else, but also be very clear on what our policy should be.

Dr. **MASSEY**. This is a part of the discussion. I share your concern that we do not inadvertently endanger our institutions by trying to fix a problem. There is a real problem in the management of indirect costs and the interaction between universities and the Government. And it is a very complex area.

But having just arrived from a major research university, I can agree with you that indirect costs support real and vital functions at our universities. In spite of some instances of inappropriate charging to these costs, it is a legitimate part of the funding of research and we want it to be done in way that the Nation benefits most cost effectively on both sides. So, I share your concern that we not rush into a quick fix.

SUPPORT FOR SMALL COLLEGE INFRASTRUCTURE

Senator **MIKULSKI**. Well, the indirect cost is often incurred by major universities, often called flagship schools, involved in research.

The National Science Foundation also is involved with much smaller schools that you heard me mention to Dr. Bromley. I will call them the Ninas and Pintas of higher education, but they certainly helped us get to America. Some are the historically black colleges.

If I could, just a quick tour around my own State. Morgan State University needs tremendous help in this particular area. They might not be part of the major research program. I met with two of the presidents of the women's colleges in Maryland. Sister Kathleen Feeley, the president of Notre Dame, told me about the need to upgrade Notre Dame's laboratories, and she could do it for less than $1 million. That school has produced a science teacher who went on to be an astronaut finalist. That school has an important nursing education program which is a whole other group. I believe nurses are scientists, as well as providers of bedside care.

It is these schools that I worry about. They do not have big endowments; big fund raising. Their ties to State legislators are not like public universities. My question then becomes, How can we help them in an appropriate way to modernize and be fit for duty because they are the incubator of many of our Ph.D.'s. They provide schools that are important to special constituencies and also train people in allied health careers and a whole variety of other important scientific programs for our country. I note that the academic facility modernization has been phased out. We have a new $50 million for laboratory instrumentation.

Could you talk about what you think our role ought to be in funding the Ninas and the Pintas, and what you would request in that area?

Dr. **MASSEY**. I think you are very correct about the important role of these institutions. Having been a product of one myself, I can personally attest to their value at least for one person.

At the NSF, as you know, we have a number of programs that support these institutions directly and they're eligible for support through all of the ongoing programs as well. There's the Instrumentation and Laboratory Improvement Program. The program that we had last year for facilities supported many of those schools, and the Academic Research Instrumentation Program this year will be very important for just the kind of support that you mentioned that many of these institutions need now. So, I share your views on their importance. I believe we have within the request a mix of programs that try to address those questions.

In terms of the facilities, we do not have in this year's budget request money for the continuation of the Research Facilities Modernization Program, and the reasoning behind that was simply one of priorities with respect to what the Foundation needs and tries to support—people, the instrumentation, and finally, facilities.

In looking at the community in terms of how they can profit most directly from modest investments, given the scale of the national problem, we believe that the instrumentation program will be one that will be welcomed by both the small college and the research university community. It does not solve the long-range problem of facilities. That will have to be dealt with on a more comprehensive basis and we are looking at how to address that under the leadership of Dr. Bromley's Office.

REPORT OF COUNCIL ON COMPETITIVENESS

Senator MIKULSKI. Well, there is no doubt that this is a very serious issue. Dr. Bromley talked about a report he did with Packard some years ago. Even in those times, which is now, I think, 4 or 5 years ago, it was estimated that both in our public and private, large and small institutions of higher education, we had over a $10 billion backlog in the need for modernization and upgrading. These needs could be for everything from air-conditioning to fire codes.

Doctor, we are going to rely upon the National Science Foundation to really guide us in this. We in the Senate held hearings on this in the authorizing committee and Senator Kennedy authorized a facilities modernization of $120 million. We had $20 million in the appropriations. The question is, What is the best mix.

We look to you, not at this hearing, because we have a lot of ground to cover. We would be concerned that they have access to buying laboratory equipment, but that they also meet fire codes. Some are just not modern enough to even buy the equipment. Sometimes the equipment is different. They can go to donors and may find it is easier to raise funds at a local level or to reach out to alumni for facilities modernization than for equipment. So, we are really going to look to your advice. I know that you are committed to the Ninas and the Pintas, as I said.

What we want to do is make sure we appropriate funds in a way that helps these universities modernize, but also does it in a way that they can really do the appropriate fund raising either with State legislators or private givers and leverage funds. We will not be able to pay the bill, but we would like our role to stimulate self-help activity at the local level. So, we look forward to talking with you on that.

I want to ask one more question related to research priorities. We did talk about "Gaining New Ground," this superb report. We understand this is also a budget that you have just come in on. It is amazing that you know so much about it already. But could you tell us how the 1992 National Science Foundation budget attempts to address some of the issues in the Council for Competitiveness and what you anticipate doing as the Director of the National Science Foundation in terms of moving the type of agenda that is articulated in this report?

Dr. MASSEY. Thank you.

I agree it is an excellent report. The conclusions they reach and the recommendations they make in the report I think are entirely consistent with the kinds of programs that we have at the Foundation. As I said earlier, their first observation was that in those areas where we are strong, it is due to four factors, and the first one was a close tie between basic research and generic technology. We are addressing that in a number of ways.

One important way is by providing institutional arrangements where the performers of basic research and the developers of technology can meet face to face and share information. That is through our engineering research centers and science and technology centers.

The other way is by supporting the research which underlies our critical technologies. The materials synthesis and processing initiative is closely related to most of the critical technologies that are pointed out in the Council's report as being key to America's competitiveness. And, of course, the high-performance computing and communications initiative addresses a large number of technologies in the area of microelectronics, semiconductors, and computers. So really, our programs are very consistent with their recommendations.

One of the major observations that they make, which often is overlooked and is not emphasized enough, is that institutions can make a major contribution to competitiveness by providing people who are adequately trained and educated to make American industry more competitive. Of course, we spent most of yesterday speaking about the NSF's role in that regard.

So, I see these recommendations as being quite consistent with and supportive of the programs in which we are engaged.

Senator MIKULSKI. Thank you, Dr. Massey.

We note that our colleague, Senator Bob Kerrey, has joined us. We are going to turn to him for questions.

We do have questions for the record related to the Antarctic program, astronomy, and, of course, your salaries for people and the building relocation. We note that the Bahcall Commission has made some excellent recommendations related to priorities for funding that we would like to follow up in the appropriations cycle. But we will not be able to cover all that, and you have already been generous with your time. We just want you to know, while we won't be asking questions about the Antarctic program now, we are very firmly committed to it and want to work with you on it. Also in the astronomy program, how your priorities, the Congress' and the Bahcall report mesh.

Senator Kerrey?

Senator KERREY. Thank you, Madam Chair.

Before we proceed with the questioning, I have a prepared statement I would like to insert in the hearing record at this point.

[The statement follows:]

STATEMENT OF SENATOR KERREY

Dr. Massey, I, too, welcome you and your staff back for another day before the subcommittee. Today, we will focus more specifically on your programs and initiatives.

I have a number of questions which I want to pursue. Prior to that, I just want to make a couple of comments, partly along the lines of our discussion yesterday.

One is that we do have some success stories. There are some things out there that we are doing right. When I think of NSF, I think of your Project W.I.S.E. (Women In Science and Engineering); I think of NSFNET and its MIDNET Center. I think of some of the distance learning programs we are starting in Nebraska. But, when I look at what's out there and what's proposed, I often feel like I'm trying to put together a puzzle. There are lots of little pieces and we have to try to make it all fit. That is one reason that I've been such a strong supporter of the state systemic initiative proposal: It can bring people and programs together. It can be an agent for cohesion. This subcommittee increased the program by 50 percent last year and directed that additional states be funded. I am pleased to see your budget request for $31 million. I think we ought to fund every state that has a viable program. If they don't produce, then take it away, but give them the opportunity and the incentive to bring things together.

A second matter I want to mention is EPSCoR. You heard me yesterday refer to geographic distributions. This is another side of the same issue. I appreciate the fact that NSF has invited Nebraska to submit a proposal under EPSCoR—after all, we did provide the funding last year. But, I also want to reiterate the case—not just for Nebraska but for all the EPSCoR states. I'm going to use the figures from the EPSCoR coalition. They are 1988 figures, but I doubt they have changed much. In 1988 the 10 states which received the most in federal R&D received 62 percent of all federal R&D funds. If you add in the next 10 states, the percentage rises to 82 percent. If you look at the 20 states receiving the least—the states that tend to be the EPSCoR states—they received 6.2 percent of federal R&D funds. Some 82 percent of federal R&D for the top 20 states; 6.2 percent percent for the bottom 20.

But, that's only the beginning. If you look at the figures on a per capita basis, then the top 10 states were getting $60 for every person; the next ten states were getting $37 per capita. On the other hand, you look at the bottom 10, and they are getting $10 per capita; the next ten up are getting $17 per capita.

Furthermore, if you look at academic R&D expenditures from state, local, institutional and other sources, you find that about half the EPSCoR states are making a greater per capita effort than half of the top ten. In fact, Nebraska, which has a very disappointing record in obtaining federal research dollars, is, on its own, making a greater per capita effort than all but one of the top ten states. (That one, I might mention, was Maryland.)

Your request for EPSCoR is $15 million—one half of one percent of your budget request. I don't think that doubling that—using 1 percent of the NSF budget for 20 states, many of whom are making a significant effort on their own—is too much to ask.

When 75 percent of students attend colleges in their home states, when traditional ways of attracting students don't seem to be producing the scientific and technical expertise we need, then we have to reach out. I think NSF has a responsibility to reach out. I urge you to consider this plea from states which could obviously use a helping hand.

STATEWIDE SYSTEMIC INITIATIVE

Senator KERREY. Dr. Massey, I have more questions than I have time, so some of these I will submit for the record.

First, though, I would like to talk about the statewide systematic initiative and then a little bit about EPSCoR.

One of the things that I think that we need to bear in mind in both of these cases and, indeed, in many cases, is that we should use the NSF as a means to increase community involvement and local understanding of what needs to be done at the local level so that it is not just a process of us coming to NSF trying to get as much money as possible into our State.

In both the systematic initiative and the EPSCoR initiative, I know by being involved with both of those, I have learned a great deal about what needs to be done with curriculum development at the primary and secondary level, what needs to be done to try to keep girls involved with science, what we need to do to overcome special barriers for minorities. I know that I have discovered all kinds of problems that will not necessarily melt away with additional money.

I think that NSF can be extremely useful to us in helping us get the right policies in place if you make certain that we are not just engaged in getting some money for our States, but also in trying to use NSF to discover the best policy.

What kind of response did you get from the systematic initiative applications? What kind of response did you get the from States themselves? I am thinking not so much in quantity, but the quality of the response from States?

Dr. **MASSEY**. I will ask Dr. Williams to give a little more detail about it, but I think we got about 30, and we may be able to fund between 8 and 10.

I just read a sampling of them myself because I wanted to get some sense of the quality and the breadth. And what really impressed me about them was the way the States were bringing together diverse elements from schools, private businesses, universities, museums, national laboratories, to do just what you have said, to take advantage of resources that are already there and leverage the resources they are requesting from the Foundation.

But, Luther, would you please maybe say a little more in detail about what you have seen in the requests?

CHARACTERISTICS OF STATEWIDE SYSTEMIC INITIATIVE

Dr. **WILLIAMS**. There are four points that should be emphasized about the initiative.

First of all, the diversity and appropriatenesss of what was submitted. The plans from the States matched the circumstances in the States; they differed between very small States, States that do not have a comprehensive university system, et cetera. So, the first observation is that the States drew realistic plans to match their individual circumstances.

Second, the variety of approaches. One of the requirements by NSF was that the major leadership sectors of the State had to be involved in these K-to-12 education initiatives. So, the plans that were put together involve the Governor's office, the corporate sector, science and engineering industries, the school system, parents, and so forth.

Probably the most important result to date, in my view, is the use of the NSF program to entice a State to evaluate its needs and its resources and put together a well articulated statewide plan that it can deliver. NSF's role was planned to have this effect—to be catalytic.

Third, we are in position and actually responding to requests from other Federal agencies who see roles that they can play in these efforts.

And last, there are a variety of private sources such as private foundations that support math/science education that are exhibiting enormous interest in these programs. They recognize that they have the opportunity to make investments as opposed to making contributions to the school system. These are investments that the States have already agreed on in their overall plans, which spell out the roles of the various players. The States have stipulated in very clear terms what outcomes they expect and how, in fact, they will measure them.

Senator **KERREY**. Do you find in each of these applications certain general problems that all States seem to share? One thing that I have seen in Nebraska is that there seems to be a considerable amount of distance between the institutions that we want to work together. It is a very understandable distance. Part of it is born of the need to compete for resources, and that is a considerably less understandable sort of thing.

Dr. **WILLIAMS**. Yes; I would agree, and I would add that individuals who have traditionally been stakeholders in the outcome of K-to-12 education have not exercised leadership roles—and that includes the universities and the major employers in the States. Under this program, they are now revising that position and assuming leadership.

PLANS FOR STATEWIDE SYSTEMIC INITIATIVE

Senator KERREY. What do you plan to do with $31 million?

Dr. WILLIAMS. As Dr. Massey indicated, fiscal year 1991 is the first year of the program. Our request is consistent with our priorities in the precollege sector. The $31 million would allow us next fiscal year to roughly double the number of States participating in the program.

Senator KERREY. One of the things that I also observe is the difference between this job and being Governor. I have 220 days here and 110 back at home, and the balance is on the road, which puts me in a position at times of not knowing of what is going on at home.

So, I want to encourage NSF to assist us in making sure that we get cooperation between institutions. Do you see ways that you could help us discover ways to make certain that policy is being applied correctly?

Dr. WILLIAMS. Yes; there is one suggestion I would offer. We are going to run these programs in a somewhat atypical fashion. They are going to be operated as cooperative agreements, which means the NSF is going to continue to interact with these States on a year-by-year basis to make sure that the outcomes that we expect actually do occur. Under that general rubric, there would be an opportunity for you, or anyone else who desired, to interface with the State at the time that we are examining their midyear or full year progress, and help entice the participants, the leaders, to stay the course.

EPSCOR

Senator KERREY. I am also thinking of other areas that I would ask NSF to stay alert to. I know you do a lot of field visits and you have a lot of people with expertise. In Nebraska we have a State board of education that is elected by district. We have a board of regents for the university. That is elected by district. Then we have 800 or so individual school boards out there, all of whom obviously are elected and control a little piece of the area. They get elected for a variety of reasons. They are driven by whatever the urgency or the need is. Unfortunately, the need to cooperate is rarely a very dominant one.

It seems to me that, particularly in math and science, the effort is relatively fragile. It is not as if there is somebody out there constantly protecting that activity and making sure that it gets an appropriate amount of resources. So, anything that you could do from a distance to help us at the local level to improve the performance of the programs would be, from my standpoint, very helpful.

Moving on, I want to ask a couple of questions about EPSCoR and then I will stop, Madam Chair.

The committee did increase funding last year for the EPSCoR Program. I would like to know how you intend to use the funds that we have provided for the EPSCoR Program. Again, let me lay a foundation.

As I look at EPSCoR, I see two things that I ought to try to do with it. One, I ought to try to use it to engage the public in Nebraska in a discussion about how we are going to apply scarce research dollars to build areas of excellence, rather than spreading it out thinly according to a variety of different demands. In other words, I ought to use the EPSCoR Program to force a debate that results in a conclusion that has us saying "No" to certain areas of research for which we just do not have the resources.

And second, what I ought to attempt to do is to see EPSCoR as a means by which States like ours that traditionally have not enjoyed a great deal of support from NSF in research, can achieve some equalization. But what I most definitely should resist again—although I must confess that it is difficult to do—to bring home some additional bacon for my State. Again, I see the need to influence a debate at home and to increase accountability for research expenditures for EPSCoR.

I would appreciate knowing how you view the program and also give you the opportunity to answer how you are going to spend the money.

Dr. MASSEY. I agree totally with your views as to how it ought to be used. In fact, I think in those cases where EPSCoR has been successful, it has been used in that way. We have two new States that will be funded this year that have entered the program—Kansas and Nebraska. There will also be 10 new awards to States in fiscal year 1992. That is how the money will be spent.

The history of the program shows that, by and large, it has achieved the purposes it set out to achieve; that is, to provide incentives and mechanisms and some guidance for States, those States whose research base has not made them as competitive as they would like to be, to build the infrastructure and to bring together all the right elements to improve their competitive position. And if one looks at the record—the program has been evaluated, and there is a report on it—you can see that really has happened in many of the States who have participated. So, what you have in mind in Nebraska and what you would encourage is exactly what is intended for the program.

The other encouraging thing, in terms of its record, is that other agencies are now beginning to look at what NSF has done, and some will be required to mount EPSCoR-like programs. But as this spreads to other agencies throughout the Government, I believe its effects on individual States can be even greater.

EXPANDING EPSCOR PROGRAM

Senator KERREY. You have requested $15 million. There is some interest in increasing that to $30 million. Can you tell me, or perhaps seek some additional response from behind you, if that is necessary, as to how you would spend that $30 million?

Again, keep in mind that I think that pressure should be upon us as well to make sure that it is not just additional bacon that we are hauling back to the State, although as I have indicated, I am not absolutely averse to doing that.

In basic and applied research the demand exceeds the supply of resources. It is also my experience that it is fairly easy for a researcher to come before a politician with limited knowledge of science and with 3 or 4 minutes of explaining the Krebs cycle to be able to snow us into thinking that they are the best researcher on the planet. It is very difficult for us to determine, with our knowledge, where the merit lies.

Senator MIKULSKI. Before you answer Senator Kerrey's question, I am going to have to excuse myself. I have to depart for another meeting and I have to depart now.

Senator Kerrey, I know you are going to resolve this great question of merits compared to pork barrel. I look forward to your comments and briefing on it.

Senator KERREY. I do not want to resolve it completely. [Laughter.]

Senator MIKULSKI. I am going to ask you to take over and close out the hearing. And no earmarks for Nebraska until we talk. [Laughter.]

Dr. MASSEY. Thank you very much, Madam Chair.

Dr. Willenbrock, in whose area in which this program falls, has been working with it over the years. I will just let him respond to that.

Dr. WILLENBROCK. Thank you very much, Dr. Massey.

Actually $15 million is the request for fiscal year 1992, and we have currently a competition we are calling the advanced development competition underway. We anticipate that up to 10 States will receive awards. This leaves open the question as to what happens to the other States that do not succeed in this competition. Our plan is, particularly if additional funds are available, that we would then rerun a competition for the nonawardee States and the additional States, Kansas and Nebraska.

EPSCOR COMPETITION

Senator KERREY [presiding]. How do you intend to work with us to make sure that the competition indeed is competition that produces focused research?

Dr. WILLENBROCK. We are presently using a two-stage plan. The first stage is to look at infrastructure development to see that indeed the right people are working together and that the State essentially has its act together. As you know, we have been doing some very effective work in Nebraska along this line.

Then the second stage is to identify those centers of excellence that you referred to to see if the States make proposals about these particular research areas. Then these are examined with the merit review system that we traditionally use. Therefore, we identify those areas in which the opportunity to become competitive is near at hand.

TARGETING EPSCOR RESEARCH

Senator KERREY. Let me put a bit of information out here so you can see what my concern is. I have an eight-member board of regents in Nebraska, all good and wonderful people who try to do right thing. Nonetheless, they are rewarded by the voters by the extent to which they are able to increase the proportion of their total revenue from what I call the non-State fund side. They look for tuition to pick up some of it. They get State tax dollars; they get Federal money, and they get some private money. There is an obvious political incentive to try to increase the Federal share. It is just there and it will always be there.

But, in order for EPSCoR to have a good outcome—and I think it is a program that offers us an opportunity to have a very desirable outcome—we have to have the discipline to focus the research. I would like to increase the funding for the EPSCoR program but I do not want to increase the funding if it is going to loosen the discipline that is required for competition in the first place.

Dr. WILLENBROCK. I think you are on target, Senator Kerrey, because this is exactly what we are trying to do to maintain that competitive system in place. The overall objective is to raise States which have not been competitive into a more competitive status.

There have been very significant success stories over the last 10 years of this program. There have been very significant developments in technical areas where States have been able to develop a capability for gaining external research support and thus becoming part of the overall system. It is certainly our endeavor to identify this capability. That is why we use this two-phase system of looking first at the people and then at the right technical areas. This technique has worked successfully.

Senator KERREY. Is there a concern for a loss of momentum when there are breaks in funding?

Dr. WILLENBROCK. We have noted some of that, but actually the States have come back in subsequent competitions. There have been other competitions in the past in which there have been winners and losers; we have worked with both the winners and the losers. So, States have come back and have been able to advance effectively.

It was rather interesting in this latest competition, which was open to all States, one EPSCoR State did not apply because it did not have its act together. Its infrastructure developments were really not in shape and they knew it. I think they will be involved later on.

Dr. MASSEY. May I just follow up on that?

Karl, I would rather say funded and unfunded, rather than winners and losers, because I think even those who are unfunded have gone through the process of evaluating their own resources and quite often then find that they can improve without the funding. And I think that is going to happen with the statewide systemic initiative. So, the process, as you pointed out, is quite important.

I think the $15 million—a lot of planning went into that—is about right in terms of evaluation of the proposals, just for the reason that you mentioned. If it turns out to be seen as a block grant program to States, we will lose its entire purpose.

COMPUTER NETWORKING

Senator KERREY. No; I do quite agree with that. It will be a very, very difficult thing to maintain that balance it seems to me.

The next area I would like to talk about is NSF's networking. You mentioned the supercomputing program and the NSF network itself. As you know, we have MIDNET, located at the University of Nebraska at Lincoln.

One of the challenges, it seems to me, is to make that extraordinary tool available to the community. We have talked about a junior high school that we hooked up to MIDNET. What we did was get the local Bell operating company, regional Bell operating company, to bypass themselves essentially and hook these students up to MIDNET. And it dramatically changed their capacity to be able to do research. Now, I think we have a long way to go. We still have additional barriers and things we can do to make that tool even more useful.

But there is another locus of operation, which I think we have ignored. That is the home where we have answered the question, to some extent, through a very small NSF program called WISE. WISE is trying not only to answer the question of why do girls in school drop out of science, but trying to solve the problem at the same time. The girls take a laptop to the home and they are connected to the university and role models there.

In the process of networking, what you are doing is connecting institutions, home, school, et cetera. What I am struggling with is the question of, how do I take that institution and open up the doors. Increasingly, there are far too many barriers between the home and the school already and if I add another one, that the young person has got to go to the school in order to get connected, I may, indeed, make the problem worse.

Has NSF given any thought to what we need to do to hook the community up more with the NSF network?

Dr. MASSEY. Let me ask Dr. Brownstein who has headed up our initiative in this area, because he would know a lot more about the details.

Dr. BROWNSTEIN. Thank you.

Senator Kerrey, the NSFNET project is a complicated one. There is a backbone which you think of as a supercomputer network, but the NSF also supports regional networks, one of which serves your State and also supports a good bit of research. Part of that research is directly related to the question that you asked. We have supported research on the development of protocols for dial-up from normal telephone systems to the INTERNET, either through a regional network or through one of the emerging private network providers who are servicing commercial firms and industry—and we have worked with other agencies and with the phone companies, in fact, to create an integrated INTERNET that puts together those private commercial networks, the NSF regional network family, and the backbone.

It is now possible, for example, for someone, from their home for approximately $20 to $50 to get a subscription to a private network which will connect them to the INTERNET and give them access to all of the emerging capabilities of that national network. So, the research is quite important because it will lead to increased capacities and capabilities for access to certain services.

LINKING PRECOLLEGE INSTITUTIONS TO THE INTERNET

Senator KERREY. Have you other primary or secondary schools in the country that are hooked up to the NSF network?

Dr. **Brownstein**. There are several dozen that are presently hooked up. They have either been doing it on their own or through the regional networks which have been quite ambitious in working with local universities to involve the high schools.

But, more importantly, we have begun working with the directorate for education and human resources. A program officer in that directorate, working with program officers from the computer and information science and engineering directorate where the network support activities are located, has produced a report which documents the work that needs to be done for networking in K–12 science and math education. More importantly, they have involved the external community, including the educational community, which is now gearing up very strongly to involve precollege education in the NSFNET activity, and we are very excited about that.

Senator **Kerrey**. I am very excited about the feedback that we have gotten from the young people at McMillen. It seems to me there is a tremendous opportunity there.

We have a very solid resource of people in the school that are now meeting every Monday night trying to figure out how to make the NSF network work better. So, by a year or two from now, you will probably have 20 or 30 teachers inside of McMillen that will understand how to make this tool work, how to apply it.

And, perhaps, even more importantly, I had a local Bell operating company that was willing to do something that they had to do in order to make it work, and that is to bypass themselves. This is something that a business has no difficulty doing. If they are a high enough user, they can get the bypass done without much difficulty, but with a low-end user, like a school or a home, it makes it awfully difficult to get the job done.

So, I am asking NSF to help us making the right connections in the home and in the school, because if the same application occurs in the home that is available in the school, it seems to me that you are going to tie the family and the school together in the effort of trying to educate the child which is the ideal.

Dr. **Brownstein**. This is absolutely forefront technology which will be equally available to the researcher in the supercomputer center as to a private individual or to a school system.

What we have learned in the enterprise is that those applications do not come only out of the development of the technology. We support people who develop those applications and we rely upon a partnership of users who have these facilities to make these things work.

UTILIZING NETWORKING TECHNOLOGIES

Senator **Kerrey**. Let me get a little more specific here because I do not think I am describing the barrier very well. McMillen is a school very much like every other school in the country. The President, when he announced his education objective, quantified it for us. We have 110,000 public and private schools in the country and 16,000 school boards with 35 million students in school every single day of the school year.

And not surprisingly, they have been asked over and over and over to do more and more things. In fact, every impulse that we have to do good in the school creates some additional paperwork for them. They find themselves overloaded with work already. And any new thing that comes in is apt to be greeted with some skepticism. Teachers and administrators are going to say, "Look, I have my hands full already doing 100 other things. I haven't got time to do this."

What I am looking for is an answer to the question, how we apply it, and to get it answered inside the context of the everyday work that these schools and the school boards themselves are doing. It seems to me that we are going to need some centers that assist us in applying that technology. And my preference would be to do it as close as possible to the school or wherever you are going to apply it so that you actually get applications that work. You cannot pick up the newspaper anymore without reading about some new advance in technology, some new miniaturization process, some new advance in satellites, some new advance in software. We are advancing all the time in communication technology. So, the choices are getting more complicated, not less.

Dr. MASSEY. I think what you are describing is almost a technology transfer problem. How do we make sure that the development that is coming out of the work that Dr. Brownstein is heading in high-performance computing really is effectively utilized in the areas, say, that Dr. Williams is most responsible for in education and human resource development. And I think the Foundation is really addressing this issue.

Part of what you are looking for is going to have to come out of these initiatives that are being funded. They are working closely together to make sure that the connections are there. I think you are hitting a very important issue that has come up before in the development of technology in the United States where the technology has really outrun the capacity of the local user to apply it effectively to solve problems.

Luther, would you like to say a little bit more about that?

Or would you like him to, Senator?

DISSEMINATING TECHNOLOGY

Senator KERREY. Sure.

Dr. WILLIAMS. Well, I think the three of you have amply described the problem. We very desperately need—from the point of view of our education program—to have a systemic effort. We are going to have to disseminate these materials through all the school districts, not just a few, if we are going to do that in a cost-effective manner.

As we move to catalyze this new version of statewide attention to math and science education, a process by which we are trying to gather all of the variables into one large effort, most assuredly there is a significant need for networking, for employing communication in an instructional mode, et cetera.

What we realized within the context of NSF, was that the education program had to work toward a joint venture, a partnership with our colleagues who are actually doing the research, exactly as Dr. Massey described.

You raised the question about regional centers or test sites. What we have in mind, as you will see in the report that is coming to you, is to do just that. The plan for the first year or so is to run programs proximal to schools, have university researchers and computer scientists involved with individuals from industry and with practitioners from the schools. Those are the people who would actually work on the problems very closely with the schools. There will have to be a period of concentrated and effective testing before we make the investment to connect a significant number of the high schools. It is a challenging problem, but it is one that we can't avoid.

Yesterday at the hearing we were talking in part about the broad issue of dissemination of curricula and other materials, mostly from the vantage point of the Department of Education. I cannot think of a better way to do that than to have a well-developed K through 12 sector math/science network to rapidly disseminate it. Every teacher, every elementary, middle school, and high school math and science teacher would have available to him or her in real time the same information about curricula models that have been tested and shown to be exemplary. With that, we will really begin to make a difference on a national level. So, it is an exceedingly important problem.

Senator KERREY. The other thing is what you can do with a relatively small marginal expenditure. For example, at McMillen it was an $800 expenditure. That is all the taxpayers had to put out to hook them up.

Now, it precipitates some additional consideration from policymakers as to whether or not you want to change the depreciation schedule, for example, for regulated entities so they will apply, in this case, fiber optic lines so that access can be gained.

We also find from the WISE Program, Women Investigating Science and Engineering, that it works when they are close enough that the long-line charges are not terribly large. Otherwise, long distance charges immediately become the barrier. So, we find that the proximity issue becomes a very important issue to address.

I have many other questions. We are too close to the kitchen here. It is causing me to be hungry. [Laughter.]

ADDITIONAL COMMITTEE QUESTIONS

I assume it is having the same impact on you. I am going to submit these questions for the record.

[The following questions were not asked at the hearing, but were submitted to the Foundation for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR MIKULSKI

COMPETITIVENESS

SENATOR MIKULSKI: Can you provide three example of how the 1992 budget request attempts to address the problems which the Council on Competitiveness report "Gaining New Ground" outlines?

ANSWER: The report finds that "U.S. position in many critical technologies is slipping and, in some cases has been lost altogether - - ". The report recommends that: "While keeping their basic research strong, universities should develop closer ties to industry so that education and research programs contribute more effectively to the real technology needs of the manufacturing and service sectors."

Below are three examples of how NSF is addressing these concerns:

(1) NSF Research Centers. These centers represent relatively large cross-disciplinary efforts, often focused on technology development and involving extensive collaboration with industry. Among the centers supported by NSF, the following are examples of those having technology advancement as explicit components of their research mission:

The Engineering Research Centers (ERC) Program was established.to support cross-disciplinary engineering centers focusing on research and education in major technological areas important to U.S. industrial competitiveness. The centers support cross-disciplinary teams of faculty and students, provide for large-scale experimental equipment, and bring an integrated, engineering systems perspective to engineering research. They improve the relevance of engineering education to engineering practice by providing students with experience in research driven by technological and industrial views, exposure to work in cross-disciplinary teams, and direct contact with industrial personnel.

The Science and Technology Centers (STC) Program encourages university-government-private sector collaborations to develop a knowledge base in science and technology that will contribute to the economic and educational competitiveness of the U.S. The STCs provide a mechanism to exploit opportunities in science and engineering where the complexity of the research problems requires the advantages of scale, duration, facilities, or collaborative relationships. The centers involve students, research scientists, and engineers from academia, nonprofit organizations, industry and Federal laboratories to stimulate opportunities for the transfer of knowledge.

The **Industry/University Cooperative Research Centers** (I/UCRC) Program encourages industry/university cooperation by developing research programs defined by the industries supporting each center. Since NSF support ends after five years, an important incentive exists to improve collaboration with industry and to ensure that the research meets industrial needs. On average, the centers attract ten times the support provided by NSF through contributions from firms and several states. There are currently 45 centers carrying out research in a variety of areas relating to the critical technologies, including polymer and glass processing; plastics recycling; nondestructive evaluation; chemical process control; sensors and actuators; computer graphics and software engineering; coatings; grinding; and quality control measurement.

(2) Materials Synthesis and Processing (MS&P) Initiative. Within the FY 1992 budget request there is a special increase of $25 million, to a total of $84 million, for research on materials synthesis and processing. This initiative will strengthen the competitive position of U.S. industry in using next generation materials and processing methods, e.g., aerospace, communication, high performance computing, and biotechnology. More specifically, it will lead to: (1) the development of new materials that will enable advanced technologies for the 21st century; (2) the development of novel processing methods and their integration with device and applications manufacturing; (3) a significant new supply of scientists and engineers oriented toward synthesis, design, processing, and fabrication; (4) a research community with greater focus on cross-disciplinary integrative aspects of MS&P and responsive to the needs of U.S. industry; and (5) environmental improvements through the use of safe materials and processes.

(3) Strategic Manufacturing Initiative. ENG's Division of Design and Manufacturing Systems (DDM) supports this special initiative. In FY 1992, a $1.5 million increase is requested, from $3.9 to $5.4 million, for expansion of groups in strategic manufacturing from 13 to 18, covering such topics as: integration of manufacturing processes and systems; rapid prototyping; and next generation machine tools and manufacturing equipment to achieve

superior performance and reliability. The division also spends $0.5 million for Engineering Faculty Internships to further encourage faculty to conduct research within an industrial setting, so as to establish or redirect their research efforts with a greater awareness of national needs.

Another important activity that should be mentioned here is the Japanese Technology Evaluation Center (JTEC). NSF's Engineering Directorate supports the Japanese Technology Evaluation Center (JTEC) in collaboration with other federal agencies. The purpose of the JTEC assessments is to contribute to more balanced technology transfer between Japan and the U.S. The program supports in-depth technical assessments of Japanese research and development in selected technologies. Recent assessments have evaluated Japanese R&D in space propulsion, advanced computing, database systems, and bioprocess engineering. The JTEC concept has recently been extended to a European study of nuclear power plant instrumentation and controls, including assessments of research in France, Germany, Czechoslovakia, and the USSR.

SENATOR MIKULSKI: If we implemented the NSF budget request completely, when would we see some specific, realizable results in America's technological competitiveness -- one year, three years, five years, or a later point?

ANSWER: NSF supports basic research which provides the new knowledge that leads to new products and processes. Basic research is an essential investment in the Nation's scientific and technological future. Such investments have generally been shown to have impact on economic productivity and competitiveness of the Nation.

Retrospectively, we know that considerable investment over the decade of the 1970's by the Federal government in NSF and NIH formed much of the foundation for the Nation's biotechnology industry. Furthermore, in several industrial sectors -- information processing, drugs and instruments -- a significant proportion of new products and processes would not have reached the market had it not been for the contribution of recent academic R&D. In any case, the most recent estimated social rate of return to past investments in academic R&D was 28 percent (a figure to view with some caution because of the large number of assumptions and simplifications).

SENATOR MIKULSKI: Shouldn't we have greater expectations in the awarding of research grants that there be a closer link to our nation's economic competitiveness?

ANSWER: If by "link" you mean "knowledge transfer", then yes in many areas, such as engineering, there should be greater expectations. In the programs where NSF has placed great emphasis on "knowledge transfer" -- such as the Presidential Young Investigators program or the Engineering Research Centers or the Industry/University Cooperative Research Centers -- our expectations are being realized. Companies are "buying in" to academic research programs not only with funds, but also with donations of equipment, release time for industrial scientists and engineers to participate on campus in the research as well as welcoming academic scientists and engineers into company laboratories.

PRIORITIES

SENATOR MIKULSKI: As a result of the budget agreement, it is possible that the NSF appropriation will be less than that requested in the President's budget. What will be the Foundation's strategy for allocating a possible reduction of $50 million? Of $100 million?

ANSWER: There are various processes through which NSF sets priorities among science disciplines. First, NSF has an on-going planning process, assessed annually, which identifies important areas within and across disciplines. There are many inputs into this planning process, such as disciplinary and interdisciplinary advisory committee recommendations, special studies such as those done by the National Academy of Sciences, workshops, and the contributions of internal NSF program staff, a third of whom are one to two year visiting scientists and engineers from the nation's colleges and universities. The National Science Board holds a planning session each June to address the following year's budget and meets six times a year to discuss and act on specific projects. Within the context of this planning and agenda setting process, the top management of the Foundation, with concurrence by the National Science Board, set specific priorities.

The impact of this priority setting process is increasingly felt at two points in time. First, when NSF submits its budget request to the Congress, and second, when the Congress alters that request. At any level of reduction, NSF will attempt to retain its general priorities across the research and education activities. In this regard, support for individual investigators will receive priority as will the FCCSET initiatives in HPCC, Global Change and Math and Science Education.

SENATOR MIKULSKI: In the past the Foundation has often taken a pro rata reduction across all research directorates. Doesn't this strategy mean that we fund many things at mediocre levels, but never make the hard choices in ranking or prioritizing among research initiatives and disciplines?

ANSWER: In the recent past our appropriations Act and accompanying report language has included the following language,

> "as a general reduction to be applied on a proportional basis to all program elements."
>
> --Fy 1991 House Report accompanying appropriations.

Language such as this constricts the Foundation's ability to, as you say "make the hard choices".

However, the process NSF follows to establish funding priorities is continuous, open and decentralized. Choices are shaped by many considerations, including scientific readiness, technical feasibility, response to national needs, affordability, and balance among programs.

The request to Congress sets the priorities and makes the difficult choices. A pro rata reduction from the request serves to maintain these priorities within the available resources.

INDIVIDUAL INVESTIGATORS

SENATOR MIKULSKI: After accounting for the four major Presidential initiatives requested by NSF in 1992, funds for individual investigators go up by only 7.5%, just about the rate of inflation. Does the focus on these initiatives risk shortchanging what has been the Foundation's backbone throughout its history, the individual investigators?

ANSWER: Core disciplinary research support for individual investigators will increase by 12 percent in 1992. Support for individual investigators is included in the HPCC, Global Change and Materials Synthesis and Processing initiatives, as they form the backbone of research done under these initiatives.

HIGH PERFORMANCE COMPUTING AND COMMUNICATION

SENATOR MIKULSKI: The Foundation has asked for $213 million as part of the Administration's new High Performance Computing and Communication (HPCC)

Initiative, an increase of 26% ($44 million) over last year. What unique role will NSF play in this initiative?

ANSWER: NSF has several critical leadership and coordinating roles in the Federal High Performance Computing and Communications (HPCC) Program by providing computing and networking infrastructure support and by developing enabling technologies for advanced computing and communications positions and standards.

o NSF will coordinate activities for the broad deployment of the National Research and Education Network (NREN) working with all agencies with mission specific requirements.

o NSF will coordinate activities in basic research and human resource (BRHR) development, while each agency retains its role as required to accomplish their own mission. NSF has a primary role in the support of basic research, infrastructure, education and training in the multi-disciplinary areas of computer science, computer engineering and computational science and engineering.

o NSF has a primary role in providing access for the academic research community to high performance computers located at national research centers.

SENATOR MIKULSKI: Why is the HPCC initiative given such a high priority given the fact that (the) U.S. is now pre-eminent in "Information Technologies", and we are weak in so many other areas?

ANSWER: The U.S. leadership is in the high end of computing associated with the development and use of conventional and massively parallel supercomputers, mini-supercomputers, and associated visualization workstations. The HPCC Initiative seeks to capitalize on this lead to assure continued U.S. leadership in the application of these technologies to the solution of important scientific and technical "grand challenge" problems confronting our Federal mission agencies, U.S. industry and academia. Assuring this U.S. leadership in high performance computing and communications is especially important in this era of accelerated development of massively parallel computers and high speed computer communications networks.

By extending the general U.S. technological leadership in high performance computing and computer communications, the HPCC Program will provide for wide dissemination and application of the technologies to speed the pace of innovation as well as serve the national economy, national security, education, and the global environment. The uncertainties associated with the use of these advancing technologies will be reduced by the program. The cooperation among government, industry and universities and the continued use of government and government-funded facilities as a prototype user for early commercial HPCC products is facilitated through the program.

ENGINEERING RESEARCH

SENATOR MIKULSKI: After investing substantial funds in engineering research, why aren't we doing better in this area?

Answer: It is well recognized that the U.S. has lost substantial ground to Japan in technological areas such as optoelectronics, manufacturing processes, and electronic components.

Despite this, U.S. engineering research and education remains in a strong position compared to other developed countries. This is evidenced by the strong interest that citizens of these countries have shown in attending U.S. engineering graduate schools, in participating in U.S. research activities, such as the engineering research centers, and in establishing joint research programs with the U.S. in such areas as intelligent manufacturing systems. As indicated in the Council on Competitiveness report, *Gaining New Ground,* the U.S. still maintains a leadership position in many technological areas.

However, engineering research and education can and should be strengthened along the following lines;

(1) Maintain and strengthen long term leading-edge research in the engineering disciplines. A strong technical knowledge base is a prerequisite for technological advances. University-based research has a strong educational component as well, which should not be overlooked or minimized.

(2) Make a decisive, long-term commitment to be a world leader in critical technologies, such as those listed in the National Critical Technologies Report. Private industry bears primary responsibility, but there is an important role for the Federal Government.

(3) Increase the transfer of research results to the private sector. At NSF this is accomplished most effectively through industry-university cooperative

activities, such as the Engineering Research Centers.

(4) Increase research on manufacturing processes and systems, and engineering design and synthesis. In FY 1991 NSF will spend about $59 million on research to develop and expand the engineering foundations of manufacturing across a broad spectrum of American industry. However, this effort must be expanded and more closely coordinated with industry.

(5) Improve the quality of engineering education in order to produce engineers who are internationally competitive and able to assume broad leadership roles in society. At NSF this is being accomplished through such programs as the Engineering Education Coalitions and the Engineering Research Centers.

(6) Increase the number of women, underrepresented minorities and disabled persons who participate in engineering education, research and practice. This is an expanding human resources pool from which future engineers must come.

SENATOR MIKULSKI: Does the relatively poor standing of the U.S. in engineering indicate that NSF engineering centers have failed (or are failing) in their value as incubators of technologically competitive ideas and products?

Answer: As discussed above, NSF does not believe that engineering in the U.S. has a "relatively poor standing" compared to other countries.

Rather than failing, the Engineering Research Centers (ERCs) are producing advances in knowledge that are proving valuable to industry in advancing competitive technology and they are producing students better able to advance the competitive position of firms. For example, the following types of activities are typical in the ERCs:

Researchers at the Columbia University Center for Telecommunications Research (CTR) have worked with their industrial partners to produce a thorough understanding of the relationship between lightwave network architecture and evolving device constraints. They have demonstrated optically-controlled high-speed photonic switching, and produced new materials and techniques for high-speed semiconductor lasers, along with new laser-etching techniques for fabricating active and passive optical components. In 1989, CTR organized Project ACORN as a jointly-defined collaborative research activity targeted toward the lightwave network of the twenty-first century. The first phase involves exploration of lightwave network architectures and devices, network management strategies for multimedia traffic, HDTV, medical imaging and supercomputing applications. The second phase will consist of a wide-area field experiment involving leading-edge telecommunications users. Twelve of CTR's 25 Industrial Participants are involved in Project ACORN.

The University of Maryland/Harvard University ERC for Systems Research focuses on computer-aided engineering design of high performance, complex automation control and communications systems. This center has made innovative advances in design methods and software systems that address the basic productivity and competitive challenges facing American industry. For example, an Artificial Intelligence-based software system for selection of machining operations for metal parts has been integrated into the Automated Manufacturing Research Facility at the National Institute of Science and Technology, and a successor package has been implemented. Texas Instruments' knowledge base and process planning environment has been adapted to run with this package.

In its first six years of operation the Purdue ERC for Intelligent Manufacturing Systems (IMS) has created a unique and outstanding environment for research, education, and industrial collaboration on advanced concepts for a next generation of computerized and responsive manufacturing systems. The focus on manufacturing systems is directed toward discrete-mechanical-product manufacturing, which accounts for about 12% of the GNP, currently at $400 billion per year. Several examples of results which have had direct application in industry are: (1) software from the Quick Turnaround Cell was used by Cincinnati Milacron in their Intelligent Machining Workstation; (2) ALCOA has employed the theory and instrumentation developed for temperature sensing; (3) Chrysler is using the Center's knowledge management software to interpret stored measurement data; and (4) measurement and insights obtained in the IMS laboratories enabled Ransburg Corporation to improve their spray painting systems.

A joint effort started in 1987 between DuPont and the Carnegie Mellon University, Engineering Design Research Center (EDRC) developed an algorithm to improve resource allocation decision systems. DuPont addressed planning and scheduling problems by building a set of optimization tools and expert systems within a common decision support package. This decision support package was adopted in approximately 35 businesses encompassing 8 DuPont plants worldwide. Annual cost savings documented in November 1989 were on the order of $25M, of which over 9.2% may be attributed directly to the optimization procedure developed at the EDRC. Since this procedure improves the performance of other rules and procedures in the Decision support system, the overall contribution is likely to be much higher.

SENATOR MIKULSKI: At a time when the U.S. is so weak in engineering, why do we allow foreign firms to participate in the engineering centers. Why are we subsidizing foreign research in this way?

Answer: The participation of a foreign firm in an engineering center is the choice of the center and its industrial advisors. However, the admission of a foreign firm to membership in a center should be governed by a "quid pro quo" policy. That is, if the foreign firm brings knowledge or devices of value to the center and its members and the foreign firm is willing to share them under the same guidelines as a domestic firm, then membership is possible. However, if a firm merely wants to join for a fee and brings no additional value to the center and its members, membership is discouraged.

MATERIALS SYNTHESIS

SENATOR MIKULSKI: NSF is asking for a 60% increase in materials synthesis this year and proposing a major new initiative in this area. What is the significance of this measure for our competitiveness? Does that justify such a large increase in one year?

Answer: In FY 1992 NSF has requested an increase of $25 million, from $59 to $84 million, for research on the synthesis and processing of advanced materials. This is an increase of about 42%. Special emphasis will be given to small multidisciplinary groups and individual investigators working on novel electronic, photonic and biomolecular materials. If funded, the increase will support research in three NSF Directorates.

Materials is by far the most significant element in the cost of production and we believe the proposed NSF initiative will strengthen the competitive position of the Nation's industry in developing and using next generation materials and processing methods. NSF is not alone in believing that this area is critical to future U.S. competitiveness. As you know, the Office of Science and Technology Policy (OSTP) recently published its long awaited critical technologies report. The first major area listed in this report is *materials*. The Office of

Science and Technology Policy has also selected advanced materials and processing as a Federal Coordinating Council for Science, Engineering and Technology (FCCSET) Committee initiative.

Other reports have also stressed the need to expand support for materials research. An important report by the National Research Council, *Maintaining Competitiveness in the Age of Materials* concluded that it is essential to enhance the nation's materials research base in order to strengthen the competitive position of U.S. industry in the 21st century. The Council on Competitiveness report, *Gaining New Ground*, concluded that the U.S. is falling behind in many materials and associated processing technologies.

ASTRONOMY

SENATOR MIKULSKI: On behalf of the astronomy community, the Bahcall Commission recently made an assessment of their research needs for the future. Their conclusion was that we not build new astronomical facilities until we repair existing astronomical observatories and infrastructure. Does the Foundation support the Commission recommendation to increase infrastructure spending? How will the agency respond to this need?

ANSWER: The National Science Foundation (NSF) does indeed support the recommendation of the Bahcall Committee to devote more attention to the infrastructure both at the National Observatories and in grants awarded to individual investigators.

NSF has realized for some time that caring for existing facilities has become an increasingly important issue for the National Observatories. The National Observatories host hundreds of visiting astronomers per year. Because of constraints in funding, these facilities have been forced to become "lean and mean" operations. Indeed, they have reached the point where services and facilities maintenance had started into a serious downward spiral after a long period of gradual erosion.

It has been possible recently to address infrastructure concerns in modest but very meaningful ways. Enhancements to infrastructure improvements planned for FY 1991 and requested for FY 1992 are summarized in the table below.

ENHANCEMENTS TO INFRASTRUCTURE AT THE NATIONAL OBSERVATORIES
(Thousands of Dollars)

	FY 1991 Plan	FY 1992 Request
National Radio Astronomy Observatory	$950	$950
National Optical Astronomy Observatories	$360	$700
National Astronomy and Ionosphere Center	$4,223	$4,250

Enhancements to infrastructure include:
- Restoring Physical Plant
- Restoring Research and Operations Equipment
- Computer Resources
- Upgrading Telescopes and Instrumentation

NSF is planning a program to address the ongoing needs for maintaining physical plants, upgrading computer resources, buying detectors, and other infrastructure needs. We are working with the Directors of the National Observatories to put such a program in place.

o The upgrade of the National Astronomy and Ionosphere Center (NAIC) Arecibo Observatory in FY 1991 - FY 1993 will bring the replacement, renovation, and enhancement of much of the Observatory's equipment. The telescope will be 3 to 10 times more sensitive (depending on the type of scientific program being done) for observations. The total cost of the facility upgrade is about $23 million, with NSF and NASA each paying for half.

o The National Optical Astronomy Observatories (NOAO) is doing some modest facility repairs in 1991. The unique MacMath Solar Telescope building at Kitt Peak National Observatory (KPNO) will be painted, and major road repairs will be accomplished.

o At the National Radio Astronomy Observatory (NRAO), work is proceeding on replacement of the Very Large Array (VLA) railroad ties, improvements of the VLA power cables, painting telescopes, and a number of other items that need attention.

LASER INTERFEROMETER GRAVITATIONAL WAVE OBSERVATORY (LIGO)

SENATOR MIKULSKI: The Bahcall Commission is silent on the LIGO project, an expensive ($211 million) facility proposed to study gravity waves. Since LIGO is clearly a lower priority for ground-based astronomers, shouldn't we invest our limited resources in basic astronomy research and re-tooling our astronomical infrastructure rather than starting another expensive new project.

ANSWER: If the Laser Interferometer Gravitational Wave Observatory (LIGO) is initiated in FY 1992, construction will take five years. Following this, an initial program of research will explore the basic physics of gravitational radiation. Only at the end of this decade or the beginning of the next, when an international network of gravity wave receivers comes into existence, will research begin to address the many interesting questions in astronomy.

The recent survey of Astronomy by the National Academy of Sciences, "The Decade of Discovery in Astronomy and Astrophysics" (the "Bahcall report", 1991) did not include LIGO among its priorities since its importance for the field of astronomy will probably not occur until the beginning of the next decade, beyond the purview of the survey committee.

There are crucial physics questions which this instrument, and no other, can address. There is also an unusual opportunity in that this project will provide the U.S. with an exciting potential tool for astronomy in the following decade.

To ensure a healthy future of science in the U.S. and continue our remarkable advances, the Foundation believes that we must continue to invest in its scientific infrastructure, developing new facilities such as LIGO as well as maintaining and upgrading existing facilities.

ANTARCTIC

SENATOR MIKULSKI: Why is NSF's budget for Antarctic research providing for only a $3 million increase for actual research done there? Is this adequate, particularly given the recent and startling evidence that ozone depletion is occurring at a much faster rate than we had anticipated?

ANSWER: The requested increase of $3 million for antarctic research represents an increase of 15.8%, which is close to the increase requested for NSF's Research and

Related Activities appropriation. This amount is for research grants only and does not include associated increases for the operational support necessary for all research activities in the Antarctic.

Funding for continued ozone depletion research is included in the base program and plans are to increase support for research on biological effects of increased ultraviolet radiation due to ozone depletion.

SENATOR MIKULSKI: What are the Foundation's infrastructure and capital improvement requirements in the Antarctic over the next 9 years? What are the specific capital needs? For example, how much is needed for planes and helicopters, for rebuilding the South Pole Station, or for environmental cleanup? Why are these improvements needed?

ANSWER: Major capital needs over the next nine years are for replacement of seven LC-130 aircraft at about $49 million each(which includes infight refueling), or $343 million in total, and replacement of the current South Pole Station at about $85 million.

Replacement of the LC-130 aircraft is required because they will be reaching the end of their operational service life. Three of the aircraft were built in 1960, and four in the early to mid-1970's. South Pole Station was built in the early 1970's and has reached its life expectancy. It needs to be replaced with a modern science station of adequate size.

We expect the Navy to continue to provide helicopters as long as Navy personnel continue to fly them. However, we are considering private lease and operation at about the same cost as the current cost of operation by the Navy. An increase in funds for environmental activities above the FY 1992 amount is not expected.

SENATOR MIKULSKI: If the Administration does not provide NSF relief from having to pay for these infrastructure needs out of the NSF budget, what other Foundation accounts will be tapped to pay for these improvements? Will they be in research or education?

ANSWER: It will be possible to accommodate a significant part of the Antarctic Program's requirements for infrastructure within the Program's budget if the requested funding level for 1992 is continued in future years, adjusted for inflation. Particularly important for funding these infrastructure needs is the continued support for the Safety, Environment, and Health initiative.

Increases for the Antarctic Program are in fact planned to be lower than the overall NSF increases. Thus the tapping of other accounts does not appear to be an issue.

SENATOR MIKULSKI: Didn't the original Presidential directive transferring the Antarctic to NSF from the Department of Defense specify that these operational costs were not to come at the expense of other NSF programs?

ANSWER: While the original Presidential directive transferring the Antarctic Program to the NSF did not specify that operational costs were not to come at the expense of other NSF programs, this was specified in National Security Decision Memorandum 318 of February 26, 1976. This was reiterated in the February 1982 Presidential memorandum # 6646.

The initial transfer of funding responsibility for antarctic logistics occurred in FY 1972 and was accompanied by a budget transfer from DOD. In subsequent years there were additional budget base transfers from DOD, the latest in FY 1985.

In FY 1985 the Antarctic Program was 7.4% of total NSF spending. In the FY 1992 Budget Request, the Antarctic Program accounted for 7.1% of the total Foundation budget. In FY 1984 Congress created, a separate appropriation for the Antarctic Program with the aim at avoiding budgetary conflicts between the Antarctic and Research and Related Activities appropriations.

SENATOR MIKULSKI: Prior to 1971 when NSF assumed responsibility, weren't the Antarctic programs always scored as a defense activity? Doesn't the Department of Defense now do everything on a cost reimbursable basis for Antarctic operations for NSF? Isn't the environmental cleanup initiative in the Antarctic a result of poor Department of Defense stewardship of the area? Why should NSF pay for problems they didn't create? Will NSF support the request to Mr. Darman (Director, Office of Management and Budget) and Gov. Sununu (White House Chief of Staff) to get the scoring of the Antarctic operation and infrastructure changed to discretionary defense?

ANSWER: The Department of Defense (DOD) had full responsibility for the provision of antarctic facilities and logistics through 1971, while antarctic research was funded by NSF. During the 1970's the responsibilities for logistics support were transferred to NSF.

Most, but not all, DOD operations are provided to NSF on a reimbursable basis. For example, aviation depot-level repairables are still funded by DOD, and we continue to seek a budget base transfer for this function so that we can fund it as we do most DOD support.

There is no question that for many years under DOD and then NSF management, the accomplishment of operations under difficult conditions during a relatively short season took priority over environmental considerations. However, as NSF manages the entire U.S. Antarctic Program, and as there is much greater awareness of environmental concerns than in the past, these environmental needs must now be budgeted for as an integral part of the Program.

RESEARCH FACILITIES

SENATOR MIKULSKI: In 1986 the Packard-Bromley report identified the need for research facilities at about $10 billion. Given this enormous need, why does NSF propose to terminate its one facilities modernization program? Isn't this popular program one of the few competitively driven efforts to support the modernization needs of the various colleges and universities?

ANSWER: The decision not to request funding for research facilities in FY 1992 was driven by the recognition that the Foundation should concentrate its efforts on activities that will be of the most immediate and substantial benefit to the research community, such as investigator support, instrumentation, and major specialized equipment.

RESEARCH INSTRUMENTATION

SENATOR MIKULSKI: This year, NSF proposes a new $50 million initiative in research instrumentation with an expected target level for awards in excess of $100,000. How does this instrumentation initiative rank as a priority versus other initiatives in the budget like Science and Mathematics Education, High Performance Computing and Communication, or Global Change?

ANSWER: The $50 million Presidential Initiative for Academic Research Instrumentation complements all research activities, including the initiatives and contributes to graduate and undergraduate education.

Research achievement and economic competitiveness depend critically on people and modern instrumentation. State-of-the-art research instrumentation is essential to help determine what research will be done and how productive it will be. Research instrumentation is an integral part of the nation's capability to perform the highest quality research and to ensure the availability of well-trained future scientists and engineers.

INDIRECT COSTS

SENATOR MIKULSKI: Indirect costs are currently under close scrutiny. What is NSF doing now to insure that there are no abuses in the awards made by the agency? What are the Foundation's plans for the future? Who in the agency has the responsibility for this oversight?

ANSWER: Responsibility for negotiation, audit and oversight of colleges' and universities' indirect cost rates is assigned by OMB Circular A-88 to either the Department of Health and Human Services or the Department of Defense (Office of Naval Research/Defense Contract Audit Agency).

NSF has responsibility for mainly small non-profit and commercial firms. The review and negotiation of indirect cost rates for funding purposes is handled within the Division of Grants and Contracts (DGC). Post award audits of indirect costs are performed primarily by the Office of the Inspector General (OIG).

The organizations reviewed by DGC staff on a routine basis are required yearly to submit detailed indirect cost proposals including financial statements and/or federal tax returns. The desk review of this information enables DGC to recommend funding rates which are also "ceiling" rates for NSF awards. The NSF practice of capping indirect costs at the time of award insures some protection. After the fact audits by OIG staff assist in assuring that costs claimed are allowable, allocable and reasonable in accordance with the appropriate Federal cost principles. OIG has stepped up its efforts to educate the grantee community about the appropriate uses of indirect costs and the accounting procedures necessary to insure that these costs are properly supported.

Full implementation of OMB Circular A-133 will provide additional safeguards on Federal funds. This Circular requires that the university or non-profit recipient have a comprehensive fiscal, compliance, and internal control audit performed at least every other fiscal year.

SENATOR MIKULSKI: Why doesn't NSF normally participate in the audit of the indirect costs or the indirect cost negotiation process? Doesn't the

Foundation see the need to be more actively involved in the audit process?

ANSWER: NSF does negotiate and audit the indirect costs of the small number of grantees over which it has been assigned "cognizance."

However, the main responsibility for university and college indirect cost reviews, as established by OMB Circular A-88, dated December 5, 1979, belongs to the Department of Health and Human Services (HHS) and the Department of Defense through the Office of Naval Research (ONR). Audit services are provided by the Defense Contract Audit Agency and the Office of Inspector General, HHS. Only in unusual situations has Foundation staff participated in negotiation of university indirect cost rates. An example of Foundation participation occurred in the development of special rates for ship operation awards.

We believe increased emphasis on timely university audits and implementation of OMB Circular A-133 will help in preventing future problems.

SENATOR MIKULSKI: How does NSF propose to participate in future U.S. government policy discussions on indirect costs?

ANSWER: NSF has been participating in an OMB-led committee which has been reviewing proposed changes to OMB Circular A-21.
We expect to continue that participation. In addition, NSF's Director has had discussions on this topic with OSTP's Director and we expect that interaction to continue. Finally, NSF provides formal comments on proposed changes to federal regulations and policies which affect our operations and constituents.

SENATOR MIKULSKI: Doesn't the Foundation risk having its own problems with indirect costs or similar abuses by having only 34 positions in the Office of Inspector General, a rate of one person for every 623 grant awards the Foundation makes each year?

ANSWER: As indicated in the Foundation's report to the Committee in August of 1990, further growth in budget and FTE is planned for the Office of Inspector General. Foundation management and the Inspector General have agreed to increase OIG resources steadily, in manageable increments, in the coming years.

SALARIES AND EXPENSES

SENATOR MIKULSKI: NSF is requesting a 21% increase in its salaries and expenses account request. Are funds for people and travel your highest priorities? What would it cost to fully fund these two areas?

ANSWER: People are our first priority. As programs continue to grow in volume and complexity, it is critical for NSF to attract and retain a highly skilled, professional workforce.

The $79.1 million request for personnel compensation and benefits is a fully funded budget. It supports a total FTE level of 1230, including a request for 28 additional FTE. Moreover, it includes the full year cost of the January, 1991 Cost of Living Adjustment, the 4.2% COLA effective next January, salary adjustments for administratively determined positions and for visiting scientists and engineers, and for associated increases in benefit costs.

Our second priority is computers and information systems. We have repeatedly pointed out that the new technologies introduced over the last decade (e.g. powerful personal computers, electronic mail, mainframe computer) have improved productivity significantly and have enabled NSF to manage a growing workload without staff increases. The $11.9 million requested for Information Systems (an increase of $3.6 million over FY 1991) will allow NSF to put in place a major portion of a long range plan to continue building a modern information system.

In regard to travel, we feel that the $3.5 million requested represents a realistic fully-funded budget. It is an increase of $700 thousand over FY 1991, and takes into consideration rate hikes for air transportation and per diem as well as additional site visits necessitated by the request for more program funds and staff. As you know, travel is treated as a limitation so it has to be adequately funded. But, it is also a variable that in time of tight budgets can be reduced to accommodate staffing needs. Lastly, other administrative items such as rents, telecommunications, and contractor services are fixed expenses that must be accommodated.

RELOCATION

SENATOR MIKULSKI: What priority is given to fund the NSF building relocation? Does the National Science Board and its Chair agree with this priority?

ANSWER: A building sufficient to meet the current and projected square footage and technological needs of the Foundation is a high priority for us.

Funds for relocation in FY 1992 are contained in the Salaries and Expenses appropriations request. In light of this, our priorities are:

- First, that we have the necessary **staff** to carry out the efficient administration of all of our programs;
- Second, that we have the **equipment** necessary to accomplish the efficient administration of all of our programs; and
- Third, that we have an **environment** conducive to the first two priorities.

The members of the National Science Board agree with these priorities.

QUESTIONS SUBMITTED BY SENATOR LEAHY

ACADEMIC RESEARCH FACILITIES MODERNIZATION ACT

SENATOR LEAHY: In FY 1990 and 1991, Congress passed and the President signed into law appropriations for the Academic Research Facilities Modernization Act. What is the rationale behind the Administration's zero-funding request for FY 1992?

What is the status of the competition for the FY 90 and 91 funds under this program? How many applications has the NSF received? How many do you expect to have approved by the end of this fiscal year? In aggregate, how many dollars in modernization funds have all the competing institutions requested in the competitions?

ANSWER: The decision not to request funding for research facilities in FY 1992 was driven by the recognition that the Foundation it should concentrate its efforts on activities that will be of the most immediate and substantial benefit to the research community, such as investigator support, instrumentation, and major specialized equipment.

A total of $39 million has been awarded for facilities modernization from the FY 1990 and FY 1991 funds. NSF received 425 proposals and funded 78. A total of $320 million was requested by the 425 applicants.

STATEWIDE SYSTEMIC INITIATIVE

SENATOR LEAHY: It is my understanding that the State of Vermont Department of Education submitted a FY 1990 proposal to the NSF for funding under the Statewide Systemic Initiatives in Science, Math, and Engineering Education. The proposal was rejected.

(a) Can you tell me how many states applied for funding, and how many received approval?

ANSWER: Forty-three states, the District of Columbia, and the Commonwealth of Puerto Rico submitted preliminary proposals. Of these, 30 states submitted formal proposals that were reviewed by a panel of distinguished scientists, mathematicians, and educators. As a result, 13 states were chosen for site visits. Of the 13 states visited, the Foundation has proposals from 10 under consideration for funding.

SENATOR LEAHY: (b) Has the NSF program staff met with the Vermont applicant to discuss the rejected proposal and offer suggestions for future improvements?

If not, is such a meeting scheduled for the very near future?

ANSWER: No individual meetings are scheduled in the near future; however, the State of Vermont is being invited to send a delegation to a technical assistance conference in Washington on June 22, 23, and 24, 1991, to assist those states which intend to re-submit proposals for consideration in FY 1992.

SENATOR LEAHY: (c) Has the State of Vermont expressed an interest in re-applying under this program?

ANSWER: Invitations to the technical assistance conference are being mailed the week of May 6, 1991, so we do not yet know of Vermont's interest either in attending the conference or in re-submitting a proposal; we would welcome both actions on Vermont's part.

SENATOR LEAHY: (d) If the President's FY 1992 funding request is approved by the Congress, approximately how many new states will come on-line under this initiative?

ANSWER: We are presently planning to fund an additional 8-10 projects if the President's FY 1992 funding request is approved.

EXPERIMENTAL PROGRAM TO STIMULATE COMPETITIVE RESEARCH

SENATOR LEAHY: I have been a strong supporter of the EPSCoR program since its inception, and intend to work for funding as high as possible again this year. I understand that the Vermont-EPSCoR program has applied for "Phase 2" funding under the program. While the NSF has not reached final decisions on the proposals, the Vermont EPSCoR has received a letter stating that its proposal -- while still under consideration -- has been judged "Less than Very Good". The letter, from NSF official Joseph G. Danek, goes on to say that the proposal review process will continue, and may include a Vermont site visit.

On April 22, my staff requested of the NSF congressional relations staff that a meeting be convened in Washington, on April 30 or May 7, to bring together representatives of the Vermont EPSCoR program and NSF program staff. The purpose of this status meeting would be for the Vermont representatives to raise questions prompted by Mr. Danek's recent letter; to discuss substantive aspects of the Vermont "Phase 2" proposal; and to ascertain the timetable for continuing review and final decision-making process. The meeting would include one of my staff members.

Are you aware of this request for a status meeting for the Vermont EPSCoR participants? Will you make certain that the meeting takes place on a timely basis?

ANSWER: Sixteen proposals submitted to the EPSCoR Advanced Development competition are currently undergoing the three-stage review process described in the program guidelines (NSF 90-32). The basic outline of the review process is: Stage I - review of the Infrastructure Improvement Plan; Stage II - review of the research proposals; and Stage III - Final Review Panel.

We have completed the Stage I review, and the principal investigator of the Vermont proposal has been informed of the Stage I review rating. Stage II reviews are currently underway.

A meeting has been arranged between EPSCoR staff and representatives of the Vermont EPSCoR staff to discuss the status of the Vermont proposal. However, since the Vermont proposal is still undergoing merit review NSF policy prohibits detailed discussions of the proposal reviews at this meeting. The Principal Investigator has been informed that verbatim copies of the complete three-stage review would be made available to the Vermont EPSCoR committee at the completion of the current competition.

The anticipated schedule for the remainder of the Advanced Development competition review process is shown below.

March - June	Merit review of S&E research proposals.
June	Review of complete Advanced Development proposal including Infrastructure and S&E research cluster proposals by the "Final Review" panel. Recommendations for awards to EPSCoR staff. Site visits carried out if recommended by the review process.
Sept. - Nov.	EPSCoR Awards released by the NSF.

QUESTIONS SUBMITTED BY SENATOR KERREY

State Systemic Initiative

SENATOR KERREY: As you know, I am very supportive of the state systemic initiative program at the Foundation. In my opinion, this is exactly the kind of leadership role the NSF is suited to fill: you can bring together people and resources.

What response did you receive to your first solicitation?

ANSWER: Forty-three states, the District of Columbia, and Puerto Rico submitted preliminary proposals. Of these, 30 states submitted formal proposals that were reviewed by a panel of distinguished scientists, mathematicians, and educators. As a result, 13 states were chosen for site visits.

SENATOR KERREY: You are close to announcing your first round of awards. What did you learn from this first round?

ANSWER: The Foundation has learned a number of very important facts about the implementation of statewide systemic change. For example:

- Many of the states need to develop and ability to plan and implement a systemic change in the educational system.
- Too often the planning activities have not been delegated to the most appropriate agency or institution.
- Technical assistance must be made available to many of the states.
- The Foundation must be more explicit about the meaning of the word "systemic" in the context of the program.
- The states are showing a rich diversity of approaches to systemic reform; their proposals reflect the differences among them in needs, resources, population, geography, and cultural and political traditions.
- While some states have started with a slate of new systemic strategies within which they then incorporate the best of current activities, and

other states have begun by bringing together existing efforts into a new structure with its own resulting systemic elements -- *both* approaches have resulted in some projects that are promising and some projects that are not so promising.

- Most states recognize that systemic reform must involve persons and organizations at the both the state and local levels. For example, many proposals include plans for regional alliances, or centers, or consortia throughout the state.
- The Foundation's establishment of the SSI Program has revealed widespread determination at all levels to attack the pressing needs of science and mathematics education through coordinated efforts among partnerships of people and institutions rather than with many uncoordinated projects.

SENATOR KERREY: Do you believe you learned lessons in the first round that will help future activities? Are there ideas, plans that can be replicated in other states?

ANSWER: Everything learned during the first SSI competition will be useful to the conduct of future competitions and in the management of these five-year projects. Some of the information gained will contribute to the improvement of NSF's other education programs, as well as to the strengthening of the SSI program. One of the most significant observations to date is that there are many individuals who stand ready to help make fundamental changes in the educational system, if leadership and some financial assistance can be provided.

The variety of models which will be funded will most certainly provide ideas and plans which can be shared and replicated. Many of the proposals in the first round of SSI competition reflected similar concepts and objectives. However, the plans proposed to bridge the space between concepts and objectives exhibited very great diversity. NSF believes that the projects supported will yield numerous elements which can be brought to bear on the improvement of science and mathematics education in states other than those in which they were developed.

SENATOR KERREY: Have you made any plans for sharing the information developed in the first round?

ANSWER: Yes. The SSI Program will work only if information about the projects and their outcomes is disseminated effectively to all states. Concurrent with the reviewing of the first round proposals, plans are being made for project evaluations and for the dissemination of findings and results. An important consideration in project selection is their potential for being adapted to the needs of other states.

In order to make the most of what is being learned in the course of making the first set of awards, NSF is sponsoring an invitational technical assistance conference in Washington on June 22, 23, 24, 1991 to share information and to provide assistance to those states whose proposals are not being funded in this first round. The program staff will be available at other times to meet individually with state representatives, to share information with them, and to help them strengthen their proposals for submission to later competitions.

A different kind of sharing activity is planned for another three-day conference in Washington, probably early in the fall of 1991. That conference will be invitational to the Principal Investigators and other representatives of the states whose projects were selected for funding in the first round of competition, and will be devoted to discussion of the similarities and differences of approach to specific educational problems reflected in the successful proposals.

SENATOR KERREY: You have requested $31-million for fiscal 1992. How would you plan to use these funds? At what approximate levels?

ANSWER: We are presently planning to use these funds to:

- Continue support of the projects begun with FY1991 funds;
- Initiate 8-10 new projects with average first year funding of $1.55 million;
- Underwrite the evaluation of the projects;
- Supply technical assistance to states that received SSI awards and to states that did not.

EXPERIMENTAL PROGRAM TO STIMULATE COMPETITIVE RESEARCH

SENATOR KERREY: As you know, this subcommittee increased funding for the EPSCoR program last year, and you have invited Kansas and Nebraska to submit applications.

The conference version of the VA-HUD-Independent

Agencies Appropriations Bill included $1.2 million to bring in new states. Specifically, how do you intend to use these funds and to account for them?

ANSWER: As soon as the Foundation received instructions to add two additional EPSCoR States the EPSCoR staff began the process of their selection. Data were collected and an analysis of Federal funding patterns was carried out that resulted in the selection of Kansas and Nebraska. The Foundation officially notified the respective Governors of the selection of their States as EPSCoR participants in January, 1991.

During the period January-March, 1991 state-wide EPSCoR committees were established, and NSF staff met with the newly-formed committees in March, 1991. The new States (NE and KS) are currently preparing requests for six-month EPSCoR Planning Grants of $100,000 each. The proposals are due May 15, 1991 and awards will be made July 15, 1991. All current EPSCoR participants attest to the value of this planning process in developing a long-range improvement plan for science and engineering R&D within their States, and it is important that both of the new States carry out the six-month planning process before submitting a complete EPSCoR proposal.

The length of the planning process does not allow total EPSCoR funding of the new States during FY 1991. Therefore, the remaining $1.0 million of additional money will be used to fund part of an Advanced Development award late in FY 1991.

SENATOR KERREY: Your request for funding this year is $15 million. A number of states are seeking second round funding. How do you plan to handle these applications and allocate funds among the eligible states?

ANSWER: Sixteen of the seventeen EPSCoR participants are participating in the EPSCoR Advanced Development competition. Advanced Development proposals, submitted on January 15, 1991, consist of two parts: (I) Infrastructure Improvement Plan and (II) S&E research components selected for enhancement. The latter includes requests for support of 77 research clusters and 1 research center.

Merit review of the Infrastructure Improvement Plan by a panel of nationally recognized scientists and engineers was completed in February. The S&E research components, submitted as Part (II) of each state's Advanced Development proposal, are currently undergoing standard NSF-type postal review. A final panel review (June

1991), by nationally recognized scientists and engineers, will determine the overall merit of each state's complete Advanced Development proposal. One award will be made, in part, using the additional $1.0 million provided in EPSCoR's FY 1991 funding with the remainder of the awards to be made out of FY 1992 funds, for a total of up to ten awards.

SENATOR KERREY: According to your own figures the per capita spending for federal research in the top 20 states is significantly higher than in the bottom 20. Do you see any reasonable alternative to the EPSCoR approach in assisting these states?

ANSWER: The NSF relies on existing scientific merit and technical quality as the primary criteria for the receipt of research support. Our support for research in universities and colleges utilizes a merit competition process that identifies individual research of the highest quality. This system has led to our current world leadership in academic excellence, and many countries are now trying to imitate our merit-review system. There is general agreement among the members of the scientific community that merit competition is the best alternative for funding decisions and that the distribution of NSF research funds based upon per capita or per scientist or any other such formula-based mechanism would have a detrimental effect upon the Nation's ability to compete globally in science and engineering.

We believe that the EPSCoR approach combines the best aspects of merit competition with the recognition that changes in the less competitive States and institutions are necessary to develop and sustain competitive research and education programs. Therefore, EPSCoR is designed to build the research infrastructure necessary to compete and focuses resources on only those individuals and groups within States that will be able in the long term to achieve and sustain a nationally competitive effort. EPSCoR's strength is in its methodology .... it mixes strong local management and control with extensive merit review to ensure quality control of the Federal research investment. EPSCoR is broadening the base of high quality science and engineering research and training without undermining the system of merit competition that has made U.S. institutions the envy of the world.

SENATOR KERREY: If you look at the disparity between the percentage of federal funds which go to the top 10 or 20 states and those which go to the bottom 20, how do you explain it? What are the root causes of the disparities from your point of view?

ANSWER: Federal research funding varies significantly on a per state scale, however the differences in funding are decreased greatly when the funding is considered on a per capita and per academic researcher basis. When an agency bases its funding on unsolicited proposals, as does NSF, the funding should also be considered by number of proposals submitted. For example, Nebraska, one of the states receiving the least NSF funding, submitted 122 competitive proposals to NSF in FY 1989 requesting a total of $16 million, whereas Indiana, one of the states receiving the most funding, submitted 891 competitive proposals requesting a total of $127 million. Funding rates for these two states were similar, but Indiana submitted seven times the number of proposals that Nebraska submitted.

These comparisons also have a large effect on the ranking data of individual states. For example, Wyoming ranked 38th in total NSF funding received, 6th in NSF funding per capita, and 1st in NSF funding per academic researcher.

The concentration of R&D resources within the U.S. is the outgrowth of long-term commitment to excellence on the part of the leading institutions and States during the forty year history of Federally-funded research. In light of the long record of past productivity and strong research infrastructure of the top institutions and states, the current distribution of academic R&D obligations is not unexpected; it merely reflects (1) an uneven level of research quality and capability, and (2) a lack of State and institutional commitment to attaining excellence.

SENATOR KERREY: If $30 million were allocated to this program, how would you like to see it spent?

ANSWER: The Foundation's current budget plan for EPSCoR was constructed on the premise that the EPSCoR budget would remain at the level of $15.0 million per year, through FY 1994. This amount will fully fund the advanced development awards.

SENATOR KERREY: What are the match requirements in other NSF programs which might be compared to EPSCoR?

ANSWER: The EPSCoR program is a partnership between the NSF and the participating States. Through EPSCoR the NSF establishes a productive long-term relationship with representatives of the academic S&E community, elected officials, and business leaders within a State to stimulate significant improvements in S&E research quality and capability. Although EPSCoR support can assist a State in bringing about such improvements, it is the State who must commit itself to providing the support sufficient to ensure lasting improvements in its S&E infrastructure.

Because the level of this support is dependent upon the existing level of S&E infrastructure within the State the current EPSCoR competition did not designate a minimum matching funds requirement per se. The level will vary with respect to the size and nature of the State's proposed EPSCoR objectives. A study of past levels of non-Federal support in successful programs indicate that the ratio of matching funds to NSF funds has varied from a minimum of 1:1 to as much as 5:1 with the norm being 3:1. In EPSCoR the State determines the level of match.

There are many NSF programs that require matching funds. Examples include the State Industry/University Cooperative Research (State I/UCRC) program and the proposed Academic Research Instrumentation (ARI) program. The State I/UCRC program sets a minimum requirement for matching at a 2:1 ratio, however successful proposals often exceed minimum requirements. The proposed ARI program would require a minimum ratio of 1:1 for matching funds.

Many other NSF programs have significant leveraged activities. These include the Advanced Scientific Computing Centers, the Science and Technology Centers, the National High Magnetics Field Laboratory, the Presidential Young Investigator program, and the Instrumentation and Laboratory Improvement program.

NETWORKING

SENATOR KERREY: NSF has embarked on the development of the next generation of computer networks -- the so-called National Research and Education Network. One of the things you are currently doing is upgrading the capabilities of NSFNET.

Last year the subcommittee asked NSF to report on its networking program, particularly as it relates to science education. What are the highlights of your report?

ANSWER: Staff in NSF's Directorate for Education and Human Resources (EHR) and Directorate for Computer and Information Science and Engineering (CISE), in consultation with expert advisors drawn from education agencies, schools, and higher education, have analyzed the state of the art in computer-communications networks, the level of networking activity and know-how among educators and teachers, priority needs in science and mathematics education, and opportunities afforded by the technology.

Based on this analysis, NSF has begun to establish new, more powerful linkages and collaborations among persons and technological resources involved in scientific research and education in science, mathematics, and engineering. These linkages and collaborations are supported by digital communication networks and computer-based resources through NSFNET and the National Research and Education Network (NREN) as proposed in the FY1992 Initiative on High Performance Computing and Communications of the Federal Coordinating Council on Science, Engineering, and Technology (FCCSET).

The new organizational arrangements and technology resources supported by these NSF programs will add value to and make more efficient and effective the processes by which new knowledge, tools and materials are created, communicated, understood, and implemented by teachers and students at all levels of education. This infrastructure-building program is intended as the first phase of a strategy leading to more widespread implementation of advanced technologies and curricula in education.

NSFNET, the connected *Internet*, and the NREN will help make science education -- especially NSF-supported education projects -- more responsive to changing national and local needs. Computer communications networks will support new paradigms of learning and teaching -- paradigms more responsive to current and future national needs for education in the information age.

SENATOR KERREY: What specifically has NSF been doing to utilize existing networks and computer systems in science and math at the precollege level?

ANSWER: Over the past year, the Foundation has conceptualized a program to support projects that will contribute to the establishment of a national communications infrastructure for science and mathematics education at all levels. This program was described in NSF's report to the Appropriations Committee of the Senate entitled "Networking in Science and Mathematics Education" (April 18, 1991). Existing networks and computer systems at every educational level will become part of the national infrastructure.

Projects supported by this program will create-- and advance our understanding of-- new paradigms for science, mathematics and engineering education that are made possible by computer communications networks. Linking people and resources across institutional boundaries is a central element of this program. The projects may involve learners, teachers and experts across all levels of education and among all kinds of institutional settings -- including elementary, secondary and vocational schools, state and local education agencies, colleges and universities, science centers and museums, community-based organizations, industry, research laboratories, and professional societies.

The projects supported by the program are expected to be diverse and they will contribute to the building of a coherent national support system for education in important ways. They will:

- have a common interconnection via the NSFNET/NREN, thus adding to the number of teachers and students having access to the resources available through NREN.
- add to the repertoire of educational resources on the NREN and make them more accessible to students and teachers in all educational settings.
- contribute to an accumulating base of know-how and vision of new paradigms for learning and teaching.

  Over the past several months, NSF has been working with candidate proposers in helping formulate projects that are likely to contribute significantly to building needed infrastructure for science and mathematics education. Such projects will have the following characteristics.

- have educational and curricular reform as a central focus.

  The "Kids Network" project of Technical Education Research Centers (Cambridge, MA) and the National Geographic Society (Washington, DC) provides a compelling example of how elementary school children can do science and contribute to real scientific investigations through network collaboration with other children and scientists.

- build upon current knowledge about learners' and teachers' needs, learning processes, effective learning environments, and change processes in education.

For example, much has been learned recently about the effect real audiences have on children's development of writing skills.

- create, operate, and contribute to our understanding of new organizational arrangements in education -- such as those involving collaborations among scientists, educators, teachers and students in higher education and/or elementary/secondary schools.

  In the National Education Association's School Renewal Project, teachers in thirty schools are building an online body of experience-based know-how about school-based school reform in collaboration with educational researchers in regional laboratories.

- create or expand telecommunications-based connections of educational organizations via the NSFNET, and will be compatible in design with current and evolving NSFNET, Internet, and NREN plans and standards.

- build upon prior research, development and experimentation with educational networks and online education.

  Over the past decade, several dozen on-line education research and development projects have been documented sufficiently well that others can learn from their experiences.

- establish local communications infrastructure in the organizations in which students and teachers will be working, so as to ensure equitable access.

- have clear and detailed plans for producing knowledge about network communities and activities -- knowledge that can be disseminated to others who are beginning similar work.

Projects that will serve those teachers and students who, because of geographical, cultural, physical disability, or other barriers, are most in need of new mechanisms to access expertise and materials are encouraged. State-wide and regional efforts that can ultimately contribute to the national infrastructure are emphasized, as are national projects that serve "virtual communities" with common needs.

SENATOR KERREY: I understand that NSF sponsored a seminar last weekend which examined the use of computers and networking in elementary and secondary education. What did you expect from this conference and what were the results?

ANSWER: Representatives of 25 states, 3 regional Bell System Operating Companies, and other experts in education and networking participated in a meeting held April 18-19 in Cambridge MA. The meeting was sponsored by Technical Education Research Centers, Inc. (TERC) and supported by NSF.

Expectations:

TERC proposed to investigate the role of those entities for which there is educational interest in creating a telecomputing infrastructure for science education. This activity would attempt to pool the interests and resources of government at various levels and of corporations for the purpose of creating and sharing expertise, software, and curricula. It envisions public dissemination mechanisms which could result in substantial cost savings to schools. TERC proposed the creation of a consortium for educational telecomputing, with a founding meeting in Cambridge.

NSF expectations of the report from this project are that it will provide information to decision makers concerning such matters as the state-of-the-art in educational networking, interested parties perceptions of the barriers to wider use of educational telecomputing, and resources available (e.g., existing networks within the states); and will make recommendations for the next steps in building a national network infrastructure, including indications of the software, curriculum, and organizational requirements. TERC is expected to produce a high-quality report, disseminate it widely, and organize follow-up activities among the consortium members.

This project is targeted at several of the infrastructure building needs identified by NSF: i.e., publication of information on networking for the educational community; description of possible roles of various interested parties; and indication of software requirements and alternatives for science education applications.

Status of the Report; Results:

The report from TERC is expected in late May. The participants agreed on the need to form a national consortium to support networking for K-12 education; further, they agreed to urge special efforts to produce end-user software. This would enable the educator's use of the NREN to be supportive of their needs and sensitive to their technical skills. An ad-hoc steering committee was constituted.

Since the meeting, the steering committee has established communications paths among its members via the Internet, organized a future sequence of planning meetings, and begun actively to solicit participation from the states which were not represented at the meeting and to seek additional membership from various constituencies of K-12 education: the schools, higher education, groups and organizations with special interest in educational technology and networking, and the private sector.

SENATOR KERREY: We have one junior high school in Omaha hooked into NSFNET. I am hoping to get several other schools hooked up, including several rural ones. My approach has been to try to get several demonstrations going and to learn from those demonstrations.

(a) How many elementary and secondary schools are currently on the network?

ANSWER: NSF has been informed that a number of schools have established connections through nearby universities, but currently there is no mechanism for accurate monitoring of such participation in NSFNET/Internet. The Foundation is supporting the establishment of directory services that would make it possible to identify educational users.

SENATOR KERREY: What do we know about the significance and relevance of the information which is on the network to elementary and secondary students?

ANSWER: At the present time, educators know very little about information accessible through NREN. NSF has received a number of proposals from investigators who wish to examine questions about the significance and relevance of the information; NSF plans to support several projects.

The national and international telecommunications infrastructure is being engineered and deployed at the same time as new structures are sought for education; it can be engineered and deployed so as to support not only specific desired reforms in education, but the processes for making those reforms. A critical link in the chain will be the availability of software appropriate to the needs of the schools. The Foundation is planning to support the development of end-user software that will permit facile access by teachers and students to network resources.

SENATOR KERREY: Are efforts underway to expand the data which would be of interest to K-12?

ANSWER: NSF's efforts in this regard are described in the report "Networking in Science and Mathematics Education." Specifically, NSF is working with preliminary proposers to help them formulate projects that " . . . will address networked resources and be designed to provide educators and students with online access to scientific and educational resources such as data bases, digital libraries, specialized instrumentation, remote sensors, supercomputers, instructional materials, software, and research reports." Further, a substantial dissemination effort is being planned to give teachers access to the knowledge and materials developed by NSF-supported education projects.

SENATOR KERREY: How do you see this network serving K-12 in the very near future?

ANSWER: The use of networks can serve educational purposes in the following ways:

Professional Collaborations among Educators/Teachers
Students' Collaborative Scientific Investigations
Students' and Teachers' Access to Scientific Expertise
Students' and Teachers' Access to Scientific (libraries, databases)
Students' and Teachers' Access to Information Resources (machines, software)
Collaborative Development & Electronic Delivery of Instructional Materials
Teacher Education & Enhancement

The Foundation is encouraging all educational projects that involve computer-based telecommunications to provide NSFNET/NREN compatibility. Software development needs to be done which is part of NSF's infrastructure-building effort.

SENATOR KERREY: Would you recommend statewide hookups at this point?

ANSWER: The Foundation believes that a good deal of basic research and development must be completed before it is in a position to recommend implementation of statewide networks. Nevertheless, NSF does recommend that states begin planning for statewide networks and all be made NSFNET-compatible.

Several states (among them Texas, Virginia, and Massachusetts) are establishing statewide computer-communications networks for education. They have inquired about the availability of NSF support for some of the research and development efforts necessary to implement their plans (e.g., educational experiments, developing end-user software, etc.). While NSF is not in a position to fund the school's intra-state connections, it will continue to fund the research and development necessary to support educational applications and their users.

SENATOR KERREY: Do you see these networks as possible means of disseminating materials to teachers?

ANSWER: Telecommunications networks will become a vital means of disseminating educational materials to teachers. Perhaps more important, they will enable teachers to participate in new ways in processing the development of instructional materials. NSF intends to support projects that contribute to our collective understanding of the feasibility and benefits of such arrangements.

SENATOR KERREY: What do you envision as NSF's role in NREN as opposed to the role of other agencies?

ANSWER: NSF's role in the NREN component of the Administration's HPCC plan includes broadly connecting the research and education community to the Internet via NSFNET, exploring new applications of computing and networking, and supporting advanced research on very high speed computer-communications networking. The other agencies will be more narrowly focused on connecting and serving the research communities that perform work for them in fulfillment of their missions, and the exploration of new applications useful for their missions. These agencies will support special needs, but generally rely on NSFNET to broadly reach the academic community.

All participating agencies will share the facilities they support by interconnecting major backbone networks and wherever feasible (given service needs) jointly purchase common-use carriage. NSF is described in the HPCC plan as coordinating interagency networking activity for the operation of the NREN at the level of the FCCSET. This means working with the other agencies to sustain a high degree of coordination in planning and execution of the program. DARPA has a similar role in the area of advanced, high-speed networking research which explores applications and technology.

SENATOR KERREY: What do you see as government's role in this area versus that of the private sector?

ANSWER: We are experiencing a scientific and technological revolution of unprecedented proportions. The information explosion has greatly increased our understanding of the world around us. However, the growth and exploitation of information rests not only upon the ability of scientists to produce new knowledge, but upon society's capacity to absorb and use it. Therefore, the real limits of scientific growth may well be man's limited ability to absorb and apply new information.

If society is to continue to benefit from the production of new knowledge, we must devise new and better ways to expand human capacity, multiply human reasoning, and compensate for human limitations. We must create new techniques and use new powerful technologies to significantly augment the skills that are necessary to convert data into information and transform information into knowledge. We must spend as much effort on studying the inner frontiers of knowledge (human capacity) as we do the outer frontiers of science if we are to reap the benefits of science. These activities are above and beyond what schools can accomplish in their educational missions. The research that is needed will almost certainly focus on domains for which there are not ready markets and will not be done by business and industry.

ADVANCED TECHNOLOGIES

SENATOR KERREY: You have a request for 7.5 million for an advanced technologies program.

(1) What kinds of programs do you expect to support in this area?

ANSWER:
APPLICATIONS OF ADVANCED TECHNOLOGIES PROGRAM (AAT).

The AAT is a research and development program that is concerned with issues at the forefront of technology and its applications to science and mathematics education. It supports innovative projects that will lay the research and conceptual foundations for new technologies and new science that will be available in the near future (five to ten years). We seek to bring the new revolutionary computer and telecommunications-dependent developments and concepts in science into the classroom at an accelerated rate.

First, we seek to support innovation rather than enhancement. Second, we are more interested in developing new, long-term opportunities than the solution of short-term problems. We wish to examine the future trajectory of science and technology and to test its potential in the laboratory and in the classroom. Third, we want to anticipate what new knowledge will be available ten years from now and determine the limits of cognition and learning and then test how to best articulate and represent it using advanced technologies that will be available in that time frame. Fourth, we do not want to be constrained by current limitations of current, installed technology, but wish to anticipate the technology that will be widely available ten years hence. Finally, we want to lay the research and conceptual foundations for national decisions affecting the educational uses of technology through the use of proof-of-concept tests.

We are particularly interested in supporting innovative, high-risk, high-gain research on important problems in education. If we are to affect education and reach the President's goals for making science and mathematics education the best in the world by the year 2000, we will have to develop new innovations and innovative strategies and take advantage of the technological revolution that is occurring in education. Areas that are supported by the program include:

- o Knowledge-based systems and intelligent tutors
- o Intelligent tools
- o Technology-based science
- o Production and authoring systems
- o Problem-solving and programming
- o Telecommunications, networks and educational infrastructure

SENATOR KERREY: What can you tell the subcommittee about what we now know about the technologies which appear to work the best and what we need to do to take full advantage of these?

ANSWER:

SELECTED INDICATORS OF EFFECTIVENESS.

It is difficult to develop evaluation techniques to determine if what we are doing is effective in generating new ideas and strategies for education, but we do have many indirect indicators that we are moving in the right directions.

1. RESEARCH SYNTHESIS. A synthesis of research conducted

over a fifteen year period showed computer-aided learning to be effective in elementary, secondary, college and adult education. Of the several thousand studies, the research selected approximately 300 well-controlled studies and using a statistical technique called meta-analysis found that, in general, students using computer-based instruction performed 10 to 20 percentile points higher than students in traditional classes and the computer-based groups did the job more quickly--on the average of about two-thirds the time required by conventional teaching methods. These studies are based on old technologies and techniques. This study was initiated to set a baseline by which to test the advanced technologies.

2. NATIONAL AWARDS.

A number of AAT grantees have won national awards for their NSF-funded work. In November 1990, Dr. Patrick Suppes of Stanford, a current and longtime grantee of the AAT Program, received the National Medal of Science for the development and testing of general learning theory, the semantics and syntax of natural language, and the use of interactive computer programs for instruction.

Dr. Robert Tinker of Technical Education Research Centers (TERC) received the inaugural Siemens/Smithsonian Award for the Advancement of Science at the Computerworld Smithsonian Awards Ceremony on June 25, 1990. The award was for the influential programs which have introduced computers and communications technology into the classroom.

Dr. Jill Larkin of Carnegie Mellon University has won two national awards. In addition to developing a new popular computer authoring language, CMU Tutor, which is used in the ANDREW System, she and her team have received recognition for a program called Sketch which won a distinguished software award in a nation competition sponsored by EDUCOM and the National Center for Research to Improve Post Secondary Teaching and Learning.

Dr. Paula Hardy of the Texas Learning Technology Groups's Physical Science Curriculum Project reports that the Project recently received national and international awards. The Nebraska Video Design/Product Group awarded it the Best Education Achievement Award. This national award recognizes outstanding contributions to the development and implementation of videodisc technology. The TLTG also received a Silver Reel Award at the 20th Annual International Television Association Video Festival. She also reports outstanding results with inner-city children, particularly Black and Hispanic.

Project STAR, directed by Dr. Irwin Shapiro and his team at the Harvard Smithsonian Astrophysics Lab, has won three awards for their videotape, "A Private Universe". The Gold Award at the Houston International Film Festival and the Silver National Education Film Award for 1988 and the Blue Ribbon Award at the American Film and Video Festival for 1990 recognized the video.

3. INTERNATIONAL AND NATIONAL INTEREST.

Dr. Patrick Suppes, Stanford; Dr. Seymour Papert, MIT; Dr. Robert Tinker, TERC; Dr. Marilyn Schaeffer, University of Hartford; Dr. Paul Horwitz, BBN Inc.; Mr. Philip Sadler, Harvard; have been invited and are working with the Soviet Union to work with members of their National Academy of Science and other scientists to develop a national program for computers in education. Dr. Marsha Linn of UC Berkeley has made several trips to China to assist State Colleges to incorporate computing into their curriculum and report on her research on teaching programming languages.

4. EVALUATION.

Evaluation studies of MBL, ICAI geometry and others have demonstrated important innovations in education and dramatic improvements in learning. The Carnegie Mellon LISP tutor and Geometry Tutor have produced results in the one- to two-Sigma difference ranges. A third party evaluation of the quality of contributions of the Geometry tutor and the MBL Laboratory show very favorable outcomes. We have support meta-analytic work that evaluates the effectiveness of educational technology at all levels of education and compares its effectiveness with other forms of pedagogy.

What we need to do to take full advantage of these?

Research findings in controlled environments and in limited field tests give us great confidence that technology can work and has the potential for producing significant results. However, what is now needed is an implementation phase and proof-of-concept test to demonstrate the actual effects of technology in various learning environments affecting large numbers of students. Scaling-up experiments require building new infrastructures and expanding the results from trial experiments to cover large student populations and entire curricula. This phase is necessary if we are to receive the benefits derived from research and development and realize real cost savings and educational benefits.

GRADUATE TRAINEESHIPS

Graduate traineeships for NSF were authorized in last year's math and science education bill. I understand that the National Science Board (NSF's policy making body) has put a high priority on graduate traineeships.

SENATOR KERREY: (1) How do you feel about graduate traineeships, Dr. Massey?

ANSWER: While I am still new to this job and am just beginning to develop my own opinions about topics such as this, you should know that the National Science Board has been concerned for several years that the number of Ph.D. - trained American graduate students will not be adequate to meet the needs of the Nation between the present and the first decade of the next century. Recent events have demonstrated that the Nation's economic competitiveness is in no small part, technology-dependent, and, it is also clear that a technologically competent workforce will be important in the civilian sector as well as in the military sector. Moreover, demographic projections indicate that a population "trough" is moving through our school systems and will reach our colleges and universitites in the mid-1990's. Traineeships are designed to address short-term human resources needs. Therefore, the overall focus and size of any effort should be determined in light of technical personnel demand/supply considerations.

SENATOR KERREY: (2) Did NSF request funding for graduate traineeships from OMB?

ANSWER: Yes. NSF requested funds to initiate a graduate traineeship program in the FY 1992 budget request to the Office of Management and Budget (OMB).

SENATOR KERREY: (3) What could graduate traineeships help us accomplish that the graduate fellowships which NSF now awards do not?

ANSWER: Fellowship programs are more a means of identifying and supporting individuals of outstanding potential than a mechanism, such as traineeships, for addressing short-term human resource needs. Moreover, individual receiving fellowships are free to select their host institution; traineeships would be awards to colleges and universities which than would use the award to attract additional students. In this way, a traineeship award helps to serve as an institution-building mechanism.

CENTERS

SENATOR KERREY: I am interested in the on-going debate over funding of centers versus funding of individual investigators or other priorities.

(1) How many centers do you seek to fund in the fiscal 1992 budget, in what areas and for what amounts?

(2) What do you think is a reasonable balance between centers and shorter term commitments?

(3) One of Nebraska's success stories was an instrumentation center. It is in the process of being defunded. Whether or not such a program is viable without NSF support is questionable. We have already lost several people involved with the program. What is your view of what the policy should be in areas where basic research is valuable, where long-term funding in essence maintains the program?

ANSWER: No new centers will be funded in FY 1992. Rather, funding for existing centers, including the Science and Technology Centers (STC's) distributed throughout the disciplines, will be augmented. In that regard, 25 STC's, 19 Engineering Research Centers, 45 Industry/University Cooperative Research Centers, 8 Minority Research Centers of Excellence, and 9 Materials Research Laboratories will be supported for a total approaching $150 million.

The issue of balance is regularly reviewed by the National Science Board. The Foundation's plan continues to be that less than 10% of the NSF research budget will be used for centers. Currently NSF spends about 8% on all of its diverse center programs.

While centers offer the possibility of long-term funding, they do receive annual reviews and comprehensive external reviews during the funding cycle. If the activities undertaken by centers do not provide a clear enhancement over what could be done by shorter term funding, the centers will be terminated. This has occurred, for example, in the ERC program.

I believe all programs need some sort of "sunset" mechanism to insure that they remain competitive and are not simply being supported because of previous achievements. I would note, however, that the instrumentation center cited in your question has not been terminated. The Center for Mass Spectroscopy has received funding in the past from the Foundation. They recently submitted parallel proposals for funding to both NSF and NIH. Since they have received funding from NIH, their proposal to NSF was withdrawn.

INSTRUMENTATION PROGRAM

SENATOR KERREY: The budget contains a request for $50 million for a new instrumentation initiative.

(1) With the many competing needs in this area, how do you intend to set priorities?

(2) Will your emphasis be basic laboratory research or more project, application oriented?

(3) How do you expect the cost-share to work?

ANSWER: Proposals requesting major instrumentation from all fields supported by NSF are eligible for this $50 million Presidential initiative for Academic Research Instrumentation. Shared use of the instrumentation and a sensible plan for maintenance and development will be important components of any successful proposal. Funding priorities will be established by the disciplinary directorates to ensure that quality and infrastructure issues are fully considered.

We expect proposals to be funded both in basic laboratory research and in applications oriented work.

The program will require at least 50% cost-sharing. We intend to make this a true partnership between the academic institutions and the NSF, recognizing all the real costs associated with acquiring and maintaining complex instrumentation. For example, investments the institution makes in setting up a laboratory for the new equipment and supporting the technical development will count toward the cost sharing requirement. This approach has the advantage of providing the institution flexibility and provides incentives to conduct appropriate laboratory renovation or facilities improvement in conjunction with the NSF investment in equipment.

MATERIALS INITIATIVE

SENATOR KERREY: (1) You have a materials initiative in the budget. What are your objectives with this program?

ANSWER: The rationale for the Materials Synthesis and Processing (MS&P) initiative is given in the National Research Council Report, *Materials Science and Engineering for the 1990s*, published in 1989. This report concluded that it is essential to enhance the nation's materials research base in order to provide the new materials and creative people to strengthen the competitive position of U.S. industry in the 21st century. The initiative seeks to: (1) strengthen the competitiveness of U.S. industry in advanced materials through synthesis and processing; (2) create, develop, and expand the MS&P knowledge and technology base for the next generation; and (3) educate future generations of cross-disciplinary scientists and engineers in synthesis, processing, design, and fabrication.

SENATOR KERREY: Will you use a center approach here?

ANSWER: No, at least not in FY 1992. The Foundation anticipates issuing a formal Program Announcement announcing a competitive grants program for individual researchers and small groups of investigators with complementary skills to collaborate on complex materials problems. Since this initiative is intended to strengthen the competitive position of U.S. industry in developing and using next generation synthesis and processing methods, the promotion of university-industry-government linkages and technology transfer mechanisms will be encouraged and will be a positive factor in the selection of successful proposals. In the first year, proposals in all material categories will be considered but special emphasis will be given to individual investigators and small research groups working on novel electronic, photonic and biomolecular materials. In subsequent years, other areas such as structural, magnetic and superconducting materials will be emphasized.

SENATOR KERREY: Which institutions do you expect to be most competitive in this initiative?

Answer: Research in Materials Synthesis & Processing requires an integrated approach involving many science and engineering fields. We would expect universities capable of conducting state-of-the-art research on interdisciplinary materials synthesis and processing topics to be the most competitive institutions.

SENATOR KERREY: Are other departments and agencies interested in this initiative?

Answer: Recently, the Office of Science and Technology Policy Federal Coordinating Council for Science, Engineering and Technology (FCCSET) Committee decided that Federal activities in advanced materials and processing should be better coordinated. Thus we anticipate that other agencies will be participating in this interagency process.

INFORMAL SCIENCE EDUCATION

SENATOR KERREY: Last year this subcommittee expressed an interest in informal science education programs, especially ones which involved youth in multi-session, hands-on experiences.

1. What kinds of efforts is NSF making in this area?

ANSWER: The broad goal of the Foundation's Informal Science Education (ISE) Program is to "...encourage a rich environment for recreational learning, where both children and adults can acquire a substantial measure of science literacy and awareness while satisfying a natural curiosity..." The bulk of ISE funding has been directed towards the support of public television shows on science [e.g., "Reading Rainbow" (Nebraska Public Television) and "3-2-1 Contact" (Children's Television Workshop)] and to science museum exhibits and programs [such as the development by a collaborative of science museums of eight traveling exhibits on chemistry, symmetry, insects, and other topics].

The ISE program has funded several programs which reach youth in out-of-school settings in multiple sessions with "hands-on" activities. Projects which have been supported typically reach broad audiences or plan national dissemination of materials. Examples of these projects include:

- The Children's Television Workshop has developed "3-2-1 Action Kits", which include six videos on science themes accompanied by 30 to 40 activity cards on each topic, for use in afterschool programs nationwide.
- The Hands-On organization in Montgomery County, Maryland, develops three sets of science workshops per year on a wide variety of topics; they are targeted for preschool through grade six and intended for use by afterschool groups and community organizations. The program is active in nearly fifty communities across the nation. The workshops are usually held on a once-a-week basis for during

the school year and daily during the summer. Hands-On is currently developing science and mathematics curriculum for use by Head Start programs.

- The Boston Museum of Science has developed the "Science By Mail" program, which links groups of students with research scientists in a "pen-pal" relationship. As part of the program, students are provided with science kits which pose problems and questions resolvable through hands-on activities. Over 10,000 students from all over the country are active in this program.
- The Franklin Institute Science Museum has developed a series of science kits for Girl Scouts which enable participants to earn merit badges after carrying out several weeks of experiments on topics which include meteorology, "water wonders", and space science. The Girls Scouts national organization is working actively with the Franklin Institute to develop a strategy to disseminate the materials nationwide.
- Girls Inc. (formerly Girls Clubs of America) has developed "Operation S.M.A.R.T", a series of hands-on activities introducing many science topics and careers to girls aged 8-17 years. The program is currently in use in 200 of the 240 Girls Inc. affiliates nationwide. Girls Inc. serves over 200,000 girls annually; a majority of participants are low-income and from minority backgrounds.
- The California 4-H, in collaboration with the University of California -- Berkeley, has developed the "SERIES" project, which provides multi-session activities on topics such as earthquakes, chemistry, and ecology. The program, which is targeted toward upper elementary through high school aged students, reached 20,000 students last year, nearly half from minority backgrounds. Many other organizations, such as the Red Cross, the Society of Women Engineers, Boys and Girls Clubs, and others, have started using SERIES materials. National dissemination of the materials will begin this year through the National 4-H organization.

To summarize: The ISE program has had notable success in encouraging and supporting several significant youth organizations to adopt science education as a major goal and to develop substantial programs reaching thousands of youth in continuing science programs. Members of our staff have been in contact with additional youth and community organizations to encourage their use of existing materials or their development of similar programs. The ISE program has especially encouraged organizations which reach underserved youth in urban and rural settings to develop such programs and anticipates funding additional projects in the coming year.

SENATOR KERREY: How many summer camps and other similar type programs did you fund?

ANSWER: NSF does not have a count of summer camp projects. Most of the programs described in response to the preceding question are active throughout the entire year; some, like Hands-On Inc., have special summer programs. March 27, 1991, the National Science Foundation submitted to the Committee a report outlining "A Plan for a Possible Demonstration Program of Summer Science and Mathematics Camps."

QUESTIONS SUBMITTED BY SENATOR D'AMATO

CENTER FOR COMPUTER GRAPHICS AND SCIENTIFIC VISUALIZATION

SENATOR D'AMATO: NSF recently announced the creation of a new Science and Technology Center for Computer Graphics and Scientific Visualization.

Since both Cornell and the University of Utah will be playing key roles in this effort, I wonder if you could take a moment to describe your expectations for this new center. Specifically, how will it enhance our economic competitiveness, and what role can such a center play in stimulating interest in math and science among our students?

ANSWER: The Center for Graphics and Scientific Visualization responds to the need to communicate massive amounts of information between man and machine in such a way that it is easily understood. Simulations and experiments are producing enormous amounts of data to be assimilated without the benefit of visualization. As a result, scientists and engineers are starting to produce realistic computer representations of the physical world. Almost all scientific disciplines including biology, chemistry, fluid dynamics, and Computer Aided Design/ Computer Aided Manufacturing (CAD/CAM), are using graphics technology in the course of scientific inquiry. This center will devise improved ways to link computers and the mind through the human eye. The center researchers will develop interactive computer graphics tools for cancer therapy, brain research and the design of parts for airplanes, automobiles and microchips.

The research covers a broad area of science, therefore requiring the center to be a "distributed center", with five participating universities collaborating over high-speed computer networks and through exchanges with scientists and students. Scientists at the center will work with U.S. companies to enhance the country's lead in commercial computer graphics. Seven to nine industrial personnel will be located at the center sites. To help transfer the center's knowledge to industry, center leaders are planning visits between universities and industrial laboratories. The newest developments at the center will be quickly transferred into the visualization systems produced by the U.S. manufacturers, and the enabling technology will be made available to industrial as well as academic scientists and engineers.

Today's students are part of what might be referred to as the "visual generation". The ability to "see and manipulate" answers to problems will enable students to participate on the frontier of computers in their training and work. In addition, the center will also support Ph.D. candidates and offer summer programs for both undergraduates and faculty from minority institutions.

SCIENCE AND TECHNOLOGY CENTERS

SENATOR D'AMATO: I note from your testimony that you plan to fund a total of 14 new Science and Technology Centers in FY 1991; yet none are planned for 1992. Why?

In your opinion, how valuable are these centers in terms of their overall contribution to advances in technology and education?

Where do you see this program going over the next five years?

ANSWER: A total of 14 new Science and Technology Centers (STC's) were funded in FY 1991 to complement the 11 STC's funded in FY 1989. In FY 1992, NSF plans to carry out a comprehensive review of the original group of STC's and strengthen the existing base of funding for the STC's and Engineering Research Centers (ERC's); these activities were viewed to be more necessary in FY 1992 that did beginning a new set of centers.

These STC's have proven to be extremely valuable for both education and science. Their "distributed" nature -- that is, the multi-university and multi-state partnerships -- are proving to have significant advantages. Barriers to communication across disciplines are being broken. Cooperation is being encouraged and there are areas of opportunity with industry because of the long-term funding. Students benefit by having access to a "national" faculty in a given field. Further, the centers provide a home-base for U.S. students wishing to study in a foreign country (i.e., Japan) and provide a vehicle to bring technology back to the U.S.

I am pleased to report that the Rochester STC which was started in FY 1989 appears to have developed a true-working research partnership with Xerox and Kodak. In mid-June, Xerox and Kodak are planning a major announcement indicating how they will work on pre-competitive (generic research) with Rochester.

As to your question on the future of STC's at NSF, the National Science Board and I are right now considering our long-term strategy for the STC's. A general discussion will take place at the June meeting of the

National Science Board, out of which our immediate plans for FY 1993 will be formulated. The STC's are a valuable addition to the Foundation's set of activities; their future will depend on scientific merit, national need, and public support.

SUPERCOMPUTING

SENATOR D'AMATO: Mr. Massey, it is my understanding that more than one American company is making supercomputers and that the cost of these computers can range from $400,000 to $10 million. Can you tell me what your agency is doing to encourage competition for your funds used to purchase these computers, for the best price, under the HPCC Program?

ANSWER: Many of the activities supported by NSF incorporate the purchase of equipment which may be characterized as "supercomputers". In particular, the five (including the National Center for Atmospheric Research (NCAR)) NSF supported supercomputer centers include the purchase of major systems on the high level ($5-$20 million plus) from Cray Research Inc, IBM and Thinking Machines Corporation and mid-level ($400,000-$2.0 million) systems from Intel, NCUBE, Convex, and Alliant. In many cases, the selections were based on long-term negotiated relationships, including collaborations on the associated software and hardware technologies. NSF encourages competition in the selection and purchase of equipment and systems. As part of the selection process, the development of common measures of usage across systems and careful review of the costs, usage data and accomplishments of each center are taken into consideration.

QUESTIONS SUBMITTED BY SENATOR BYRD

REPLACEMENT TELESCOPE, GREEN BANK, WEST VIRGINIA

SENATOR BYRD: The Congress provided, at my request, $75 million, in emergency appropriations, in the FY 1989 Dire Emergency Supplemental Appropriation bill (public Law 101-45) for the new state-of-the-art telescope to be constructed at Green Bank, West Virginia, to replace the original telescope which collapsed in November 1988. On December 19, 1990, the National Science Foundation awarded a $55 million contract for design, construction, and testing of the new 300-foot radio telescope.

This new radio telescope will be an asset to West Virginia and to the worldwide scientific community as one of the most sensitive and sophisticated devices for studying outer space. This telescope will contribute enormously to the understanding of the universe, with application to astronomy research programs on National and international levels. Its completion will keep West Virginia in the forefront of radio astronomy.

In response to one of my questions at last year's hearing, the NSF indicated:

> Award of a contract is expected in the spring of 1991 at which time long-lead items will be purchased and the detailed time schedule worked out. Site work will begin in 1991, manufacture of the antenna in 1992, and assembly and erection is planned for 1993-1994. The telescope, after testing, will become operational in 1995.

For the record, please provide the current status of the project and a list of the significant milestone events leading to the full operational status of the telescope.

ANSWER: Ground-breaking for the new Green Bank Telescope was held on May 1, 1991. The design of the telescope and the construction program are both on schedule. Significant milestones leading to the telescopes operation are shown below.

GREEN BANK TELESCOPE: SIGNIFICANT MILESTONES

1990:	Contract for design and construction of the telescope signed with Radiation Systems, Inc.; Procurement of long-lead items not part of

the contract, such as surface control activators, by NRAO;

1991: Final design and drawings;
Procurement of long-lead items by the contractor;
Site development and construction of the foundation in Green Bank;
Begin of manufacturing process of structural items and reflector panels;

1992: Completion of design and drawings;
Completion of site development;
Begin assembly and installation in Green Bank;

1993: Completion of fabrication;

1994: Completion of installation;
Outfitting and testing;

1995: Begin operations.

LASER INTERFEROMETER GRAVITATIONAL WAVE OBSERVATORY (LIGO)

SENATOR BYRD: The FY 1991 budget request included $47 million to begin a four-year construction project to build a Laser Interferometer Gravitational Wave Observatory (LIGO) which has a total estimated cost of $192 million. I am further advised that scientists have demonstrated over the past decade the scientific feasibility for a laser interferometric system. I am told that parallel collaborative ventures, both domestic and foreign, have been initiated to design a LIGO which would have four receiving stations at four sites on the planet. These ventures are proceeding rapidly in order to open the field of gravity wave astronomy.

In response to my question from last year's hearing, the Committee was informed that several candidate sites have been identified, including Green Bank. Also included in your response was the following summary of significant milestone events:

Significant Milestones for the LIGO project:

Proposal to NSF	Dec 1989
NSF Review	Jan - May 1990
NSF Approval	May 1990
Site Selection	Mar 1991 - Oct 1991
Engineering Design	Jan 1992 - June 1993
Site 1 Construction	Jan 1993 - Dec 1995
Site 2 Construction	Jan 1994 - Dec 1996
Site 1 Interferometer Installation	Jan 1996 - Dec 1996
Site 2 Interferometer Installation	Jan 1997 - Dec 1997
Site 1 Operational	Jan 1997
Site 2 Operational	Jan 1998

1991
Site 1 Construction January 1992 - December
1993
Site 2 Construction January 1993 - December
1995
Interferometer January 1994 - December
1995
Installation
Site 1 Ready for Operations January 1995
Site 2 Ready for Operations January 1996

Please provide for the record the current status of the project and a list of the significant milestone events leading to its completion.

ANSWER: In FY 1990, the Laser Interferometer Gravitational Wave (LIGO) construction proposal underwent merit review and was approved by the National Science Board after a special examination of cost, risks and management. A site selection competition was announced in November and 18 proposals were received by Caltech by the March 1, 1991 deadline. These proposals are currently undergoing rigorous evaluation. Prototype R&D work is continuing, leading to increased sensitivity and useful bandwidth as background noise sources are tracked down and eliminated. Large scale field tests of vacuum construction techniques have successfully demonstrated that the proposed methods are practical for industrial implementation.

Significant Milestones for the LIGO project:

Proposal to NSF December 1989
NSF Review January - May 1990
NSF Approval May 1990
Site Selection March 1991 - October
1991
Engineering Design January 1992 - June
1993
Site 1 Construction January 1993 - December
1995
Site 2 Construction January
1994 - December 1996 Site 1
Interferometer
Installation January 1996 - December
1996
Site 2 Interferometer
Installation January 1997 - December
1997
Site 1 Operational January 1997
Site 2 Operational January 1998

U.S. NAVAL OBSERVATORY, GREEN BANK, WEST VIRGINIA

SENATOR BYRD: I have been informed by my staff that the current Memorandum of Understanding (MOU) between the Navy and the National Science Foundation (NSF) is scheduled to terminate at the end of Fiscal Year 1992. The MOU calls for the Navy to provide funds to the National Radio Astronomy Observatory (NRAO) for operating the U.S. Naval Observatory (USNO) in Green Bank. The Navy currently has four naval observatories with radio telescopes (Alaska, Florida, Hawaii, and West Virginia). These observatories collect Earth Rotation and Length of Day measurements which are crucial to navigation and other military operations/functions. I am told that the Green Bank observatory, on the average, produces a higher quality of information that the other observatories, in that the Green Bank observatory experiences fewer equipment breakdowns. I am also advised that the Green Bank facility is ideally located in a Radio Quiet Zone which provides protection from interference.

If the Navy decides to discontinue funding of the U.S. Naval Observatory (USNO) at Green Bank, what will be the impact? The Very Long Baseline Interferometry and the interferometer at Green Bank have been used by the Navy since 1978 for the collection of Earth Rotation and Length of Day measurements which are crucial to navigation and other military operations/functions. How will this crucial data be collected if the USNO terminates operations at Green Bank? Please provide for the record the Navy's plans for collecting and disseminating this data if the USNO at Green Bank is terminated. The USNO employs staff with unique abilities and knowledge in an extremely technical area. I am told that, in many cases, the NRAO calls upon the expertise of the personnel in the USNO to provide support on astronomical research. How will the loss of these highly technical professionals affect the astronomical research at NRAO? Please provide the numbers and positions that will be affected by this termination. What is the proposed timing for the reduction of effort and funding termination?

Because of the scientific importance of the U.S. Naval Observatory, I would like to have your assurances that the Navy and the National Science Foundation will make every effort to continue to keep the U.S. Naval Observatory operating at its current level, and will not make any reductions without specific Congressional consent.

ANSWER: In FY 1991, the United States Naval Observatory (USNO) provided the National Radio

Observatory (NRAO) with approximately $880,000 to support observations by NRAO personnel at the Green Bank, WV, site. These observations are needed by the USNO for the determination of the earth's rotation.

The USNO proposes to reduce the level of activity in FY 1992 to roughly 50% of the level of FY 1991 and to terminate it completely at the start of FY 1993. This termination would result in the following losses to the Green Bank site:

- $850,000 annually in operating funds and approximately $30,000 annually in support of the infrastructure; or
- 8 full time equivalent positions directly charged to this activity, and approximately 9 full time equivalent positions indirectly supported by this activity.

Neither NSF nor NRAO has any knowledge as to how the USNO will obtain the earth-rotation data, if the Green Bank activities are terminated.

If the USNO activity were terminated, the loss of personnel associated with this activity would have an impact on the astronomical research by reducing the pool of technical talent in Green Bank.

The USNO is a component of the Department of Defense. NSF would like to see the Department's USNO activities in Green Bank continue because of their benefit to the Green Bank site and the astronomical research program conducted there. Indeed, NRAO would like to see USNO activities in Green Bank increase and is prepared to cooperate with the USNO on new projects that have been proposed.

SUBCOMMITTEE RECESS

Senator **KERREY**. The subcommittee stands in recess until May 8 when we will review the fiscal year 1992 budget request of the National Aeronautics and Space Administration and the National Space Council. Thank you.

[Whereupon, at 12:04 p.m., Wednesday, April 24, the subcommittee was recessed, to reconvene at 9:30 a.m., Wednesday, May 8.]

DEPARTMENTS OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT AND INDEPENDENT AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1992

WEDNESDAY, MAY 8, 1991

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 9:33 a.m., in room SD–126, Dirksen Senate Office Building, Hon. Barbara Mikulski (chair) presiding.

Present: Senators Mikulski, Kerrey, Garn, D'Amato, and Gramm.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

STATEMENT OF RICHARD H. TRULY, ADMINISTRATOR

ACCOMPANIED BY:

JAMES R. THOMPSON, JR., DEPUTY ADMINISTRATOR

THOMAS CAMPBELL, COMPTROLLER

CHAIR'S OPENING REMARKS

Senator MIKULSKI. Good morning. The subcommittee will come to order. We welcome Adm. Dick Truly, the Administrator of NASA, and his very able team to present NASA's fiscal year 1992 budget. We are very fortunate to have a team of astronauts with us and wanted to give them a particularly cordial welcome.

General Schwarzkopf will be coming to the House chamber at 11 a.m. I know the members of the subcommittee will want to be there to be part of the group that meets him. So we are going to move in a very quick-paced way through the hearing and we feel that we can get it done in time to go to the Schwarzkopf official welcome.

To move right along, I just want to make a few points in my opening statement. One is that NASA is requesting a budget of $15.8 billion for 1992. That is an increase of about 14 percent over the 1991 appropriation. The NASA request is smaller in their rate of increase that it has sought over recent years and it does come in the midst of a severe financial crunch for domestic discretionary spending in the Federal budget.

Under last fall's budget agreement, all domestic discretionary spending will increase by only $10 billion. In the President's budget request, what NASA could receive is $1 in every $5 for the program increases. We think that is going to be a little hard to do.

We have said in prior years the health of NASA's budget depends entirely on the subcommittee's 602(b) budget allocation. I prefer to give NASA its full request, but we know we will be in a very tough budget situation.

Let us go on to the challenges, not that the subcommittee will face in decisionmaking, but the challenges we face in analyzing the NASA appropriations. We know that these are enormous. The most serious issue NASA faces in this climate of tight budget is the future of the space station. As a result, we will spend a significant amount of time on this project this morning.

Last year this committee, in agreement with our House counterparts, ordered a redesign of the space station to reduce its cost, its complexity, and to clearly identify the problems likely to occur in assembling and operating in orbit and to reduce those as well. NASA and the administration took our request seriously and we are very appreciative of the hard work and cooperation that went into that.

Their redesign effort reduces the cost of the station by $8 billion between now and the year 2000. It reduces the number of assembly flights to build the station and, perhaps more importantly, allows for the station's major components to be outfitted before launch and, instead, on orbit.

Now we know that the GAO has sharply challenged some of NASA's cost estimates on this. We would like to hear Admiral Truly's viewpoint of this. While some of GAO's comments clearly overstate the size of the problem, it seems that there is confusion and we would like to use this morning to kind of clear the decks and clear the accounting sheets and get a real good picture of it.

This Senator and this subcommittee have been among NASA's and the space station's most ardent supporters and we now have to be clear, though, what it is that we are buying. I know that in the House they are wondering whether to buy it at all.

I know that we want to move ahead. I have many other comments I could make, but I am going to turn to my ranking minority.

Admiral Truly, J.R., and others there, we again thank you for your cooperation not only in the redesign of the space station, but for your cooperation with Norm Augustine and the formulation of that report. Since last year when we had our appropriations hearings, you have had more commissions look at you than I think the Hubble Telescope has looked at the stars.

We think the Augustine Report is a navigational chart. We think you are a very commanding person at the helm. We would like to have the best budget we can get for you and when we ask these tough questions today, know that they are so that we can really bargain the case of NASA and be very clear where there might even be a lack of clarity.

[The statement follows:]

STATEMENT OF SENATOR MIKULSKI

The subcommittee will come to order. We welcome Admiral Dick Truly, Administrator of the National Aeronautics and Space Administration, and his very able team, to present NASA's FY 1992 budget.

NASA is requesting a budget of almost $15.8 billion for 1992, an increase of almost $1.9 billion, or 14% above the 1991 appropriation

NASA's 1992 request, while smaller in the rate of increase it seeks than in recent years, comes in the midst of a severe financial crunch for domestic discretionary spending in the federal budget. Under last fall's budget agreement, all domestic discretionary spending increases by about $10 billion in 1992. In the President's budget request, NASA alone would receive nearly $1 in every $5 that is available for program increases.

Given recent actions by both Houses of Congress on the budget resolution, where NASA's requested $1.9 billion increase would be cut by more than half, it appears very unlikely that NASA will receive anywhere near the 14% increase it seeks. As I have said in prior years, the health of NASA's budget depends entirely on the Subcommittee's 602(b) budget allocation. While I might prefer to give NASA its full request—that will not and cannot happen—without a very healthy 602(b).

The Subcommittee will face many difficult challenges this year as it ponders how best to "divide the pie":

—A VA health care system where examples of poor care have led to the deaths of veterans;

—The implementation of a new housing bill, with nearly $4 billion in new program authorizations;

—The first phase of the Clean Air Act, whose enactment last fall was perhaps the most significant environmental legislation in a decade; and

—A request for an 18% increase in the budget for the National Science Foundation, one of whose principal missions is to make the United States number one in math and science education by the year 2000.

So the challenges we face are enormous, and the resources which we will have to achieve them are meager. That means we must prioritize our commitments very carefully, and act, based upon those priorities.

The most serious issue NASA faces in this climate is the future of the space station. As a result, we will spend a significant amount of time on this project this morning.

Last year this Committee, in concert with our House counterparts, ordered a redesign of the space station—to reduce its cost, its complexity, and the problems likely to occur in assembling and operating it on-orbit. NASA and the Administration took our request seriously. Their redesign effort reduces the cost of the station by $8 billion between now and the year 2000. It also reduces the number of assembly flights to build the station. And perhaps most importantly, allows for most of the station's major components to be outfitted before launch, instead of on-orbit.

Despite my own generally optimistic view of the station redesign, the General Accounting Office has sharply challenged some of NASA's cost estimates on it. While some of GAO's comments clearly overstate the size of the problem, it seems very clear that the space station program, and funding for it, will meet serious opposition in the Congress unless NASA puts these concerns over cost to rest immediately and definitively.

While this Senator and this Subcommittee have been among NASA's and the space station's most ardent supporters, we cannot save this program by ourselves. The Administration—the White House, the OMB, and NASA—must be willing to make the case for the station to the Congress and the American people. In addition, they must be willing to go one step further—they must walk the extra mile to help get this Subcommittee a 602(b) allocation that's big enough to fund the station without ravaging all other programs and agencies in the bill.

These are some of the challenges that face us as we examine NASA's budget today. We know they are not easy ones, and as a result, many of our questions will be tough, and to the point.

It is my hope that in answering them, however, we can work together to help retain our nation's pre-eminence in space and keep NASA as our crown jewel in that effort. As President Kennedy said more than a quarter century ago—"We do these things, not because they are easy, but because they are difficult." I believe NASA, and its dedicated workforce, do have the right stuff to lead America into the 21st Century.

So let us begin.

Senator MIKULSKI. Having said that, I now turn to my ranking minority, Astronaut Garn. [Laughter.]

Senator GARN. Thank you, Madam Chair.

PREPARED STATEMENT

If I could turn to Senator D'Amato just long enough for him to put his statement in the record.

Senator D'AMATO. Madam Chair, if I might, I would just like to submit my statement for the record as if read in its entirety.

Senator MIKULSKI. Thank you very much.

[The statement follows:]

STATEMENT OF SENATOR D'AMATO

Madam Chair, I commend you for convening this hearing on the fiscal year 1992 budget request for the National Aeronautics and Space Administration, and I welcome NASA Administrator Richard Truly.

At our last hearing, Madam Chair, you spoke eloquently about the challenge of "matching our will with our wallet" when it comes to funding basic scientific research. Your comment would have been equally on the mark if you had been speaking of NASA; for nowhere is the tension between our ambitions and our resources more acute than in our nation's space program.

With this in mind, I think NASA is to be commended for the self-restraint reflected in its 1992 budget request. This $15.7 billion request reduces NASA's proposed rate of growth, incorporates the restructuring of Space Station Freedom, and responds to the recommendations of the Advisory Committee on the Future of the U.S. Space Program.

Madam Chair, this budget demonstrates that NASA is willing to curb its will to meet our wallet. Let's not punish the agency with further significant cuts, but let us provide the resources necessary to maintain a vital U.S. civil space and aeronautics program.

Thank you, Madam Chair.

Senator GARN. Admiral Truly, we are happy to welcome you today. I will spare everyone the long, long statement that I usually give. Everybody has it memorized anyway. I will just ask unanimous consent that my statement be placed in the record and then just add to what Senator Mikulski has said.

FIVE-YEAR SIEGE ON DISCRETIONARY APPROPRIATIONS

We do face an extremely difficult budget situation. The budget crisis of last fall has really become a 5-year siege on discretionary appropriations. I am not sure that most people are aware that roughly two-thirds of our budget is entitlements, so we as appropriators—and that is true of this subcommittee as well—are dealing with about one-third of the budget when we are making our decisions, which certainly adds to the problem.

Unfortunately, it seems that Congress, rather than thinking about how we can sacrifice from our current consumption for the future of this country, is mainly thinking about survival through the next election. While it is difficult for me to be optimistic about the situation, I echo the words of Senator Mikulski that this is an extremely important hearing, that we document the need for NASA's request.

Personally, I would like to spend more than the President has asked for. I think it can be justified and I think it is needed in terms of the future; but that is not the budget reality.

I also would say that beyond the importance of this hearing today, we must have the active support of the President. He, I believe, must lobby personally like he does on other issues that are important to him. The Senator and I, while we are supportive, cannot do it alone any more. I have no more rabbits in my hat. I plead guilty over some years of using games and gimmicks and robbing money from defense and other areas, but this new budget we passed last year has taken most of my games away from me. I do not know how to do it.

So we do face a difficult situation, and I guess I have stated to the President rather publicly that he must make calls personally. It is going to take a lot of effort to come close to the President's budget request.

We welcome you here today and your testimony.

[The statement follows:]

STATEMENT OF SENATOR GARN

Admiral Truly, it is a pleasure to again welcome you and your associates to our hearing on NASA's budget request for fiscal year 1992. In many respects I find this annual hearing one of our most stimulating and interesting because we discuss programs and activities which lead the way for our Nation's future. Indeed, aerospace technology is one crucial sector of our economy where we still do enjoy world leadership. But beyond today's jobs and its critical edge for our national security, our Nation's civil space program is also an urgently needed investment towards our future.

From the research and development activities of NASA we can expect the technologies, the materials and processes, which will drive our economy in the next century as well as yield valuable medical devices and other "spinoffs" of immediate benefit. Moreover, space exploration, especially manned space exploration, is the single-most powerful tool to inspire and motivate our kids to learn math and science so that they can meaningfully participate in a technically sophisticated workforce.

I believe this is reason enough to demand that we pursue an aggressive and vigorous space program. But we have even further reason to find investment in NASA's programs compelling: our concern over man's role in changing our global environment. Space remote sensing has proven to be both efficient and effective in monitoring environmental changes on Earth on a global basis. Not only do orbiting satellites provide unparalleled coverage and insight into global climate processes, but they also are crucial to securing the international understanding and consensus necessary to initiate any program to avoid catastrophic changes in the global environment.

Finally, there is the intrinsic value to scientific research and human exploration. I believe that is at the core of our Nation's values, that a free people, striving for knowledge and excellence, will prosper.

That is why I have no qualms about advocating greater investment in our space program and only wish that we could recommend funding of NASA at substantially greater levels than the President's budget request. Sadly, my views do not reflect prevailing political and budgetary reality.

The budget crisis of last fall has become a five-year siege on discretionary appropriations. And rather than thinking about how we must sacrifice some of our current consumption to meet the needs of our future, most politicians are simply thinking in terms of survival through the next election.

While it is difficult for me to be optimistic, I hope the words spoken at this hearing today will establish a convincing record for adequate funding of NASA programs as we prepare for our budget allocation and appropriations bill.

ADMIRAL TRULY'S SUMMARY STATEMENT

Admiral TRULY. Madam Chair, thank you very much. In the interest of time, if I may, I will submit my statement for the record, but I would like to summarize it very briefly.

Senator MIKULSKI. Admiral Truly, without objection your statement is in the record in its entirety, as are those of Senators Garn and D'Amato, mine, and any other Senator or member of this subcommittee.

Please proceed as you so wish to organize yourself.

Admiral TRULY. Thank you very much. I am particularly pleased to come to this subcommittee because you have been very supportive. You have been critical of us, when we needed it, but it has always been very constructive. I am pleased to bring the fiscal year 1992 budget before you today.

The NASA and contractor team have worked extremely hard during the past year since we were last at this subcommittee to gain your confidence, to continue to have the support of the Congress and the American taxpayer, and to make NASA a more excellent agency.

We have been very busy in the 12 months since we last came to an appropriations hearing with this subcommittee. As you mentioned earlier, we have had a good look at the entire civil space program by what is called the Augustine Committee. We have overcome a number of difficulties during the past year—stories that we would be unable to build a space station; problems on the shuttle launch pad with some hydrogen leaks. The team has overcome that and we come to you today very busy and in good shape.

We have deployed the Gamma Ray Observatory and you met the crew earlier here a few moments ago. It is working fine. Ulysses has been deployed and is currently traveling to Jupiter on its way to the Sun. We have accomplished several DOD missions, the latest of which landed at Cape Kennedy just 2 days ago. Magellan has successfully mapped the planet Venus. The COBE spacecraft has taken spectacular pictures of the center of our Milky Way Galaxy. The Astro-1 conducted its astronomy mission and also a classroom from space, as other crews have done.

As you mentioned earlier, in response to last year's appropriations bill, we have worked hard to respond and have turned in to the Congress a restructured Space Station Freedom Program that I believe meets the bill in every way, and I will be pleased to talk about that in more detail.

Also last month, we rolled out the new orbiter, the *Endeavour*. I am proud to say that it was rolled out in April 1991, the date we predicted when we signed the contract 3.5 years ago. It was rolled out on schedule and under cost.

I would also point out that it flew on a modified Boeing 747 which was also delivered on schedule and below cost. Its first flight was the ferry flight this week of the *Endeavour* to Cape Kennedy.

Presently at NASA, we are continuing to work hard. We are about to finalize our fix for the Hubble Space Telescope later this month. Even today, Hubble is bringing down unprecedented space science and photography. We are preparing a crew and a vehicle to do a dedicated life sciences spacelab mission in May. So in the months of April and May we will have flown three flights and delivered a new orbiter, and all those missions have been successful. Despite all these successes, I believe that the future of the civil space program remains uncertain because of the situation that you have discussed and because of the difficulties that I know you face in the allocation and the overall budget climate on Capitol Hill.

It is never easy to get funding, but adequate funding is absolutely critical to NASA and to its space shuttle, Space Station Freedom, and space science and aeronautics programs. The 602(b) allocation for fiscal year 1992 will determine the direction, the scope, and the content of the civil space program for the next decade. It will send a signal to the American public and the world as to the extent of NASA's commitment and also Congress' commitment to our programs.

One of the reasons that makes this year very difficult is, as you know, 99 percent of our request this year is for the continuation of programs that have been approved in the past. In other words, our budget this year is essentially our core program.

However, it is a strong request on the part of the President for an increase for NASA. The budget manifests his continued strong support for the civil space program. Incidentally, later this morning he is going to meet with the crew that you just met, and he has taken the time to meet with the crews of all 15 shuttle flights that have flown since the *Challenger* accident.

This budget responds also to the recommendations of the Augustine Committee in a number of ways which I will be pleased to discuss.

YEAR OF DECISION AND COMMITMENT

In other words, I think that 1991 is a year of decision and a year of commitment to the space program—if we wish to maintain what is clearly our leadership position in the world today, to honor our international commitments, to continue as an agency and a nation to push the edge of technology, to invest in America's future, and particularly, to challenge our youth to become the next generation's engineers and scientists.

I hope and trust that by the end of this hearing the members of your subcommittee will have an opportunity to ask us whatever questions you might have about our budget and will have a better understanding of how it is an excellent investment for the Nation.

NASA is a complex agency with a very diverse and challenging set of missions that range from aeronautics research to space technology, transportation and space flight to space science programs and exploration of the solar system to education programs.

BALANCED SPACE PROGRAM

The challenge that I see that the Congress has and that we have as well, is to reasonably fund a balanced program. There has been a lot of talk lately about the agency's priorities as a result of the Augustine Committee Report; but, frankly, I believe that one of the worst mistakes that could be made with regard to that report—and I have talked to Norm Augustine several times about it—is for each part of the space constituency to reach into the report and pull out their favorite sentence, their favorite program, and put that above all.

I think Norm has made it clear, as I have tried to point out many times in the past, that what the Nation needs is a balanced space program in order to continue to move forward. I think that particularly this year the Congress and we together have an opportunity in one of our most visible programs to stabilize it, and that is Space Station Freedom. I look forward to answering whatever questions you might have today about that.

In summation, Madam Chair, I want to thank you again for the opportunity to appear here today. Your support and the support of this subcommittee is absolutely vital to our success and to our contribution to the competitive posture of our Nation.

INTRODUCTION OF ASSOCIATES

Joining me here at the table right now is Mr. J.R. Thompson, NASA's Deputy Administrator, and Mr. Tom Campbell, NASA's Comptroller. Also, the leaders of the various program offices at NASA are here in the room today if we need to get them to answer specific questions.

So thank you for having me here this morning.

[The statement follows:]

STATEMENT OF ADM. RICHARD H. TRULY

Madam Chair, members of the subcommittee, I am pleased to appear before the Subcommittee and to have the privilege of presenting the President's fiscal year 1992 budget request for the National Aeronautics and Space Administration.

As we discuss the President's fiscal year 1992 budget proposal for NASA, it is appropriate to remember the words of Dwight D. Eisenhower to NASA's men and women at the dedication of the Marshall Space Flight Center: "All that we have already accomplished, and all in the future that we shall achieve * * * is the product of unrestrained human talent and energy restlessly probing for the betterment of humanity. * * * We are propelled in these efforts by ingenuity and industry—by courage to overcome disappointment and failure—by free-ranging imagination—by insistence upon excellence * * * hard work, toughness of spirit, and self-reliant enterprise are not mere catchwords of an era dead and gone. They remain the imperatives of the fulfillment of America's dream."

FISCAL YEAR 1992 BUDGET

Today, those imperatives and that dream continue and are reflected in the President's budget request of $15.7 billion for NASA. This request manifests the President's belief that NASA activities make significant contributions to our competitive posture in the global marketplace, to our national pride and accomplishment, to our creative and intellectual spirit, to our understanding of the fragile Earth we inhabit, and to our economic and national security. An investment in NASA is an investment in America's future. I believe the American public also shares these views and supports our civil space and aeronautics program.

The fiscal year 1992 budget request represents a prudent budget and a balancing of priorities in the Administration's overall budget submission. It's a sober assessment of the resources required to implement the civil space program approved by the Congress in fiscal year 1991; it's a realistic assessment of the resources required to maintain U.S. leadership in space and to develop the critical technologies required for a secure economic and national future.

The President's budget request: manifests the strong support of the President for the civil space and aeronautics program; reflects Congressional guidance to temper the proposed rate of growth of the NASA budget and to restructure the Space Station Freedom; and responds to the recommendations of the Report of the Advisory Committee on the Future of the U.S. Space Program.

It is a budget worthy of your support and a budget well within available domestic discretionary resources in fiscal year 1992.

NASA IN 1990

As you are all well aware, NASA had its share of challenges in 1990. The Space Station EVA Report, the Hubble Space Telescope spherical aberration, and hydrogen leaks on the Space Shuttle all posed difficult engineering challenges and required serious technical reviews, top management attention and positive actions.

But 1990 also was a year of successes and accomplishments. In 1990, we launched six safe and successful Space Shuttles, we successfully guided the Galileo spacecraft past Earth on its way to Jupiter, we deployed the Hubble Space Telescope, the Ulysses spacecraft for the European Space Agency, two DOD spacecraft, and the Astro mission that, in addition to providing significant scientific information on black holes, quasars and other scientific phenomena, provided a unique educational forum for schoolchildren. We made progress mapping the surface of Venus as a result of the Magellan mission, and we produced unprecedented images of the Milky Way, thanks to Cosmic Background Explorer, and of our solar system, thanks to Voyager.

REPORT OF THE ADVISORY COMMITTEE ON THE FUTURE OF THE U.S. SPACE PROGRAM

As effective as NASA has been over the years, it was clear to me that NASA needed to improve further to fulfill our future missions and promise. Therefore, I requested that an assessment of NASA and its future agenda be undertaken by an independent panel of experts. The results of this constructive assessment of NASA are contained in the Report of the Advisory Committee on the Future of the U.S. Space Program that was chaired by Norman R. Augustine. This report was thorough, left no stone unturned, and made recommendations that will help NASA to better implement our objectives and better manage the taxpayers' money.

Change is never easy. But it is clear to me that NASA must change if we are to successfully accomplish our programs and maintain and broaden our base of support. However, to implement this report will require more than the support of the NASA management, it also will require the support of the Administration, the Congress, as well as stable and adequate funding.

FISCAL YEAR 1992 BUDGET—MORE THAN DOLLARS

NASA's fiscal year 1992 budget request is more than a request for dollars for programs and projects. It is a request for the assistance of this Committee to help make NASA a "more excellent" agency.

The fiscal year 1992 budget request also represents the desire of the President to forge a consensus on the goals and objectives of the civil space program and to commit to provide the necessary financial resources, personnel, and facilities to implement the civil space program.

NASA'S MISSION—SCIENCE, TECHNOLOGY, EXPLORATION

What are NASA missions? Why should you support this budget request?

NASA's mission embodies three major areas of endeavor: science, technology, and exploration. Each of these missions is important to the overall goals and objectives of the Agency but, more importantly, each of these missions is important to national objectives that have been identified by the President and the Congress.

Today, I would like to briefly describe the key elements of each of these mission areas and to give you a better idea of what the NASA of the 1990's is all about. After I do that, I will briefly discuss the enabling investments contained in the budget request. These investments in hardware, research, spacecraft, launch systems, facilities, and people will turn our missions into realities. Finally, I will discuss the restructured Space Station Freedom plan with you and tell you about the special emphasis NASA is putting on education.

SCIENCE

In the 1990's, the NASA space science program represents a commitment to expansion of our knowledge of the universe we live in and the planet we inhabit. In fiscal year 1992, we will continue to implement the Office of Space Science and Applications Strategic Plan, as recommended by the Augustine Committee and other NASA advisory bodies.

PLANNED MISSIONS

Over the next five years, 35 major space science missions are scheduled to be launched and more missions are in the pipeline. Before the end of the decade, we will have visited Venus, Jupiter, Mars, Saturn, and the Comet Tempel 2, and we will have deployed three great observatories—the Hubble Space Telescope, the Gamma Ray Observatory and the Advanced X-Ray Astrophysics Facility. We also will have serviced these great observatories starting with the Hubble Space Telescope in 1993.

The 1992 budget request also supports a full complement of space science and applications payloads, including the Upper Atmospheric Research Satellite, ATLAS, the Advanced Communications Satellite System, the United States Microgravity Laboratory, the International Microgravity Laboratory, Space Life Sciences Laboratory, and Spacelab J. The FY 1992 budget represents a firm commitment to a solid foundation of ongoing programs and to the maintenance of U.S. leadership in space.

NEW INITIATIVE—LIFESAT

The proposed budget also includes funding for a new initiative to develop a recoverable life sciences satellite called Lifesat. This satellite will help define radiation protection requirements for the long-term habitation and exploration of space.

MISSION TO PLANET EARTH

FY 1992 also manifests NASA's sustained commitment to understanding the planet Earth. The Mission to Planet Earth (MTPE), NASA's contribution to the U.S. Global Change Research Program, is strongly endorsed in the budget submission and manifests the commitment of the Agency and the Administration to this program with important ecological benefits.

NASA is exploring ways to restructure MTPE as a continually evolving program and to investigate the use of different size spacecraft. Two weeks ago, an Earth Observing System Engineering Review Advisory Committee was established to assess alternatives for the implementation of the Earth Observing System program, including size of platforms, instrument configuration, and launch requirements and sequencing. Dr. Ed Frieman of Scripps Oceanographic Institute will chair this review, which will get underway in May and be completed by September 30, 1991.

The Earth Probes program also has a strong endorsement in this year's budget. These highly-focused Earth science investigations require unique orbits and sensors, and will give us the capability to collect data in the near-term on global ozone, ocean surfaces, and tropical rainfall. Five Earth Probe missions are currently planned and procurement activities were completed last week for the acquisition of data by the Ocean Color Mission from a commercial service (Hughes and Orbital Sciences.)

TECHNOLOGY

Investment in technology is critical to maintaining U.S. competitiveness, enhancing our economic well being and assuring U.S. world leadership in space, and is a key element of the civil space program endorsed by the Augustine Committee.

SPACE TECHNOLOGY

Unfortunately, the space technology budget has fared poorly in recent years and NASA has been unable to make the investments in technologies that will be required to support many future space science, Space Station, and space transportation activities, or to invest adequately in technologies that will enable expanded human and robotic exploration of the solar system. The fiscal year 1992 budget request enhances funding of this program area, and NASA has initiated a process to develop an Agencywide space technology plan by late 1991, to include review by an outside panel of experts.

AERONAUTICS

Meanwhile, NASA continues to move out aggressively with an aeronautics technology program critical to the well being of the U.S. in terms of trade, transportation, and national security. In the 1992 budget submission, emphasis continues to be placed on numerical simulation techniques to aid in more efficient aircraft and propulsion systems design, advanced composite materials and structures, and aircraft safety. In fiscal year 1992, the High-Speed Research Program will continue to address the critical environmental issues associated with high-speed civil transport development by U.S. industry, and will initiate a critical enabling engine materials program.

HIGH PERFORMANCE COMPUTING AND COMMUNICATIONS PROGRAM [HPCCP)

A new governmentwide HPCCP is also included in the budget request. The goal of the HPCCP is to improve computing capability by about 1,000 times over current systems by 1996. NASA plays a key role in this initiative and is responsible for bringing together interdisciplinary teams to accelerate the development and application of high performance computing technology to meet its science and engineering requirements.

NATIONAL AERO-SPACE PLANE

Joint technology activities between NASA and the Department of Defense on the National Aero-Space Plane (NASP) program continue to make great strides, and the fiscal year 1992 budget request will support a 1993 decision on the development of two experimental flight vehicles. Investments in NASP and enabling technologies are vital to future generations of military and civil aircraft and to U.S. dominance of these critical markets.

EXPLORATION

Mankind has always had a fundamental need to explore and to expand his horizons, and the President remains firmly committed the Space Exploration Initiative and his long-term goal announced in 1989 of manned and unmanned exploration of the solar system.

Early next month, Lt. General Thomas Stafford and his Synthesis Group will report on their work, and NASA and the Congress will receive their recommendation on enabling technologies and candidate architectures required to enable the exploration of the Moon and Mars.

For 1992, the budget is based on a strategy of supporting activities focused on conceptual mission studies and on selected, key long-lead technologies that will be necessary for any future exploration endeavors. These technologies are: space surface nuclear power, space nuclear and advanced cryogenic propulsion, and life sciences and life support technologies.

Meanwhile, I have initiated a search for a new Associate Administrator for Exploration and plan to have this new Associate Administrator on board in June.

ENABLING INVESTMENTS

The unique capabilities of NASA's Space Shuttle, Space Station Freedom, Expendable Launch Vehicles, the Advanced Solid Rocket Motor, the Tracking and Data Relay Satellite System, facilities and workforce constitute a critical base upon which we can achieve our missions. In the fiscal year 1992 budget request, an additional element of this space infrastructure will be initiated as a joint program with the DOD—a New Launch System.

SPACE SHUTTLE AND ASSURED SHUTTLE AVAILABILITY PROGRAM

The Space Shuttle remains vital to our space objectives, and continues to demonstrate its unique capabilities to launch and retrieve payloads and to perform space research. The fiscal year 1992 budget request represents a continued commitment to safe and reliable flight operations, including a new Assured Shuttle Availability Program that establishes a formal funding mechanism and process for high priority improvements in the Space Shuttle. The fiscal year 1992 budget request supports 9 flights in fiscal year 1992, 9 flights in fiscal year 1993, and 10 flights each in fiscal year 1994 through fiscal year 1996, which is a very supportable transportation plan for the upcoming years.

ADVANCED SOLID ROCKET MOTOR [ASRM]

The fiscal year 1992 budget request supports the ASRM program that will enhance Space Shuttle safety margins and reliability. We expect a significant increase in the performance capability of the ASRM-equipped Shuttle and plan to use the ASRM for the Space Shuttle flights to deploy Space Station Freedom when the ASRM is available.

Pursuant to Congressional guidance, NASA has initiated a group of studies relative to ASRM cost, performance, schedule, and safety enhancements. NASA also has submitted a "finding" to the Congress concerning its technical review of the ASRM nozzle and its decision to use an ablative material instead of a carbon/carbon material for the throat entrance in order to minimize technical risks and costs.

PRODUCTION OF ORBITER HARDWARE

Production of orbiter hardware in support of the current fleet's operational requirements will continue. This budget request also continues the procurement of structural spares to significantly reduce the time to repair a damaged orbiter and to maintain orbiter production capability. Work is continuing on the hardware necessary to provide an extended duration orbiter capability to allow an orbiter to remain on orbit up to 16 days, beginning with a planned 13-day mission for USML-1 in 1992. And the latest addition to the Space Shuttle fleet, *Endeavour*, rolled out of the Rockwell Palmdale, California, facility on April 25, and was ferried to the Kennedy Space Center to be prepared for its maiden flight in May of 1992.

EXPENDABLE LAUNCH VEHICLES (ELV'S)

In addition to the Space Shuttle, launch services continue to be procured from the private sector, where available, as part of NASA's continued commitment to a healthy and expansive commercial space industry and to a mixed fleet. The fiscal year 1992 budget request accommodates the launch of the Tracking and Data Relay Satellite (TDRS) 7 on an ELV and NASA has requested funds for several missions for a variety of small, medium, intermediate and large ELV's.

NEW LAUNCH SYSTEM

The current mixed fleet of ELV's and Space Shuttles provides a base for our current requirements of transporting people and payloads to low Earth orbit. The Space Shuttle is the most versatile and advanced launch system in the world. However, the nation simply must have a more robust space transportation system in future decades. Therefore, the Agency has included funding in the FY 1992 budget request to continue technology development for a New Launch System for a range of payloads up to and including a "heavy-lift" capability. Options for configuration, cost, capability, and schedule for such a launch system have been assessed by a joint NASA/DOD team. The Vice President recently reviewed these findings, approved the NASA/DOD concept and approach, and authorized NASA and DOD to continue with preparations for the joint development of the New Launch System. The development will be structured in the near term toward a goal of first flight in 1999. The present approach allows for several schedule options and key intermediate milestones depending on technical and budgetary considerations. Final decisions on the schedule of the program will be made during FY 1993 as the result of updated requirements and technical and budgetary considerations.

This new launch system will be jointly funded and managed by DOD and NASA and will provide a range of cargo capabilities, incorporate an evolutionary approach to introduce new technologies, include a man rateable option and achieve significant improvements in operations costs and operational resilience.

GROUND AND SPACE COMMUNICATIONS

The NASA ground and space communications networks provide vital capabilities to meet the requirements of all NASA flight projects. This is accomplished through the use of a network of NASA ground stations and by three Tracking and Data Relay Satellite (TDRS) spacecraft working with a highly specialized ground station. This budget request funds the equipping of a second TDRS ground terminal, TDRS spacecraft (TDRS 6 & 7), and development of an advanced TDRS to extend network service into the 21st century. TDRS 8 funds have been deleted from the FY 1992 budget request. As noted above, TDRS 7 will be launched on a competitively procured commercial ELV.

PEOPLE AND FACILITIES

NASA's unique technical expertise and facilities are the underpinning for the successful accomplishment of the nation's aeronautics and space programs. We cannot be leaders in space exploration without a first-class institutional capability.

The fiscal year 1992 budget request represents a commitment to a NASA with the superior managerial and technical capability needed to monitor and direct civil space and aeronautics efforts. As the Augustine Committee appropriately noted, "NASA, and only NASA, realistically possesses the essential critical mass of knowledge and expertise upon which the nation's civil space program can be sustained." These world-class scientists, engineers, technicians, and support staff require your support and the resources required to do their jobs. Funding for additional civil servants is requested in fiscal year 1992 primarily to meet the increased workload associated with the Earth Observing System. Additional contractor conversions are planned in FY 1992 to ensure critical in-house capabilities—these conversions are budget neutral.

NASA has also initiated discussions with the Office of Personnel Management to explore opportunities to designate NASA as a pathfinding agency for flexible personnel management. I have also announced the new position of Associate Administrator for Human Resources to ensure that NASA will be able to recruit and retain the best technical and managerial talent—the type of people required to carry out an ambitious civil space program.

In addition to first-class people, first-class facilities also are required to maintain our nation's leadership position. NASA's research laboratories, computing capabilities, aeronautical facilities, Space Shuttle launch facilities, rocket test stands, and deep space tracking stations are unique resources and key to maintaining our nation's leadership position. The maintenance, repair, rehabilitation, and modernization of NASA's facilities are required to protect the nation's investment and are high priorities in the FY 1992 budget request.

As a result of the review of the Advisory Committee on the Future of the U.S. Space Program and other internal NASA reviews, the NASA senior management is involved in a complex reassessment of the agency's management structure in order to ensure a better and more capable NASA. This review includes activities both at NASA Headquarters and at the NASA centers. To ensure a NASA capable of fulfilling its diverse and challenging missions, it is important that the senior management team have the maximum degree of flexibility to implement any necessary changes. As was noted in the Augustine Report, "the internal management structure of NASA is best determined by those having the ultimate responsibility for the agency's performance." As the Subcommittee assesses the fiscal year 1992 budget request for the agency, it is important to remember that management flexibility and people resources are as important to the successful implementation of NASA's mission as are program dollars.

COMMERCIAL SPACE

In addition to NASA's direct investment in enabling technologies, space infrastructure, people, and facilities, the FY 1992 budget request continues NASA's commitment to work with the private sector to develop space hardware and transportation systems. A key ingredient to this initiative is the NASA Centers for the Commercial Development of Space (CCDS) program. Sixteen CCDS's, supported by NASA, combine the talent of the nation's university, industrial, and research communities to help create new markets for space products and services.

This request also manifests NASA's strong support and commitment to the utilization of commercially provided hardware and services, such as the Commercial Middeck Augmentation Module and the Commercial Experiment Transporter, and to the dissemination of technical information to the nation's business, research and industrial communities to enhance their competitive posture.

SPACE STATION FREEDOM

The cornerstone of the space program of the 1990's and the 21st century is the Space Station Freedom—the largest joint international endeavor in science and technology ever undertaken. Pursuant to direction in the Conference Report accompanying the FY 1991 VA-HUD-Independent Agencies appropriations bill, NASA submitted its plan for a restructured Space Station Freedom program to the Committee on March 20, 1991. This plan meets Congressional programmatic and budgetary guidelines, incorporates the recommendations of the Augustine Committee, honors our international commitments, is consistent with national space policy, and has been strongly endorsed by the members of the National Space Council, especially the President and Vice President who are committed to development of Space Station Freedom by the end of this decade to further American leadership in exploring space. I hope that the Subcommittee will agree it is affordable; simplifies assembly and operation; and reduces the size, complexity, number of Space Shuttle launches and extravehicular activity requirements, still meeting its priority user requirements—life sciences and microgravity research and maintaining overall safety. We need to forge a consensus on Space Station Freedom now and to redirect ourselves to implementation of the program. The NASA team has worked tirelessly in this restructuring exercise to meet Congressional direction, and I hope you will work with us to turn this program into a reality now.

EDUCATION: A SPECIAL EMPHASIS

The fiscal year 1992 NASA budget requests a 17 percent increase for Academic Programs and represents a sustained commitment on the part of NASA and the President to stimulate young people's interest in science, mathematics, and engineering; to provide resources and training to enable teachers to incorporate aerospace concepts into their classroom lesson plans; and to support our nation's universities and graduate students in mathematics, science, and engineering. NASA has readily adopted the national educational goals set by President Bush and the nation's Governors and has formulated a Memorandum of Understanding with the Department of Energy to collaborate on education programs to help improve the nation's science, engineering, and math programs. NASA is part of a multiagency Education and Human Resources initiative coordinated under the auspices of OSTP's Federal Coordinating Council on Science, Engineering and Technology (FCCSET).

The fiscal year 1992 budget request continues important ongoing programs such as the Spacemobiles, LASER and Space Grant Colleges and Fellowship Program, plus new educational initiatives geared to minorities and women. Experimental programs are aimed at regions of the nation that have not previously benefited from research activities in space science and engineering.

NASA's investment in educational activities is a critical element of a comprehensive civil space program and a sound investment in the scientists, engineers and astronauts of tomorrow.

SUMMARY

"Some say the space program should wait—that we should only go forward once the social problems of today are completely solved. But history proves that attitude is self-defeating. Many an American school kid has read the story of Columbus' doubters, and shook their heads in disbelief that these naysayers could have been so shortsighted. We must not let the schoolchildren of the future shake their heads at our behavior."

Madam Chair, I believe these remarks last year by President Bush to the men and women of NASA are appropriate for all of us today. We are standing at the edge of a new frontier and the rewards are enormous—from better understanding of our universe and our planet, to new materials, medicines and medical understanding, from new technologies to new products and processes that will capture future markets. But unless we are able to forge the necessary consensus and make the necessary commitment this year, this chapter of the American dream will be written by future generations—not by ours. The fiscal year 1992 NASA budget request represents the blueprint for the civil space program for which we seek your commitment.

Madam Chair, let's put the consensus in place this year, let's agree to provide the resources, and let's start this incredible voyage into what the President has called "the next American century." History proves that we have never lost by pressing the limits of our frontiers. Together, let's write another chapter of American history.

RESTRUCTURED SPACE STATION

Senator MIKULSKI. Thank you very much, Admiral Truly. We want to note that our subcommittee has been joined by Senator Bob Kerrey of Nebraska, an active participant in this subcommittee.

My line of questioning is going to deal first with the space station and then other must-do or priority list items that NASA feels must occur to have a robust space program.

Admiral Truly, this time last year there was a great deal of concern over the space station. We said that it was overweight and underpowered, that it had no clear mission or no specific clear mission as to what it would accomplish, and that there was a great deal of concern that in order to maintain it in space would take as many as 400 spacewalks, more than five times what we had ever done in the history of the space program.

We asked you to redesign it; you did. What we would like to hear is, No. 1, your description of the redesign, what we would buy for it, is it worth doing, and then I would like to raise with you the questions the GAO put forth—not to redo the Boxer hearing in the House, the hearing chaired by the Congresswoman—but to also clarify some of the issues raised in that GAO report.

So could you tell us, because there are those who say for the redesign it is not worth doing. Could you address this?

Admiral TRULY. Thank you, Madam Chair. I am pleased to have the opportunity to discuss the past year of space station Freedom's history.

You are right. Last year was a very turbulent year, and each of those criticisms of the space station was front-page news. I believe today, as I come to you, that I can honestly say that we have answered each one of them. As a result of the problems that we were having in development and the definition of the number of EVA's, the power levels, et cetera, the result was an appropriations bill that was very specific in direction to us with regard to expected funding runout and also to the desires of the Congress with regard to the space station.

A few months after we got the appropriations bill, the Committee on the Future of the U.S. Space Program, the Augustine committee, also pointed out that they believe that the space station should be reduced in size and so forth.

The space station program set out to work on those issues, and they worked hand in glove, I might add, with our contractor teams and all of our international partners. Before I let the proposal get out of NASA, I had our NASA Comptroller do an independent cost audit of the work that had been done.

We then took it to the National Space Council. A second independent cost audit was done by the Office of Management and Budget [OMB], and we presented the space station plan to the National Space Council prior to coming to the Congress. The space station that we presented was one that, first of all, is much more closely focused as to its purposes. Its purposes are: life sciences research in order to understand the way that the bodies of men and women on orbit for long duration flight respond; and, second, to provide a platform for microgravity science.

Whereas some years ago there was a criticism that space station was all things to all people, in fact we have focused those purposes, and it will meet them well. We have reduced the size of it. We have reduced the cost. You gave us in last year's appropriations a reduction in the planned level for fiscal year 1992 of $551 million and a $6 billion reduction over the runout of 6 years. We have met that. We have reduced the number of shuttle flights that will be required to assemble it. We have cut by more than one-half the number of space walks, or EVA's, that are required to build it.

We have clearly defined the power that will be provided along the assembly path and how much of that will go to the users, and we have worked those power issues through Dr. Fisk, who is the representative in NASA for the user community.

So, in short, I think the program has been tightened up both in its focus and its doability. I think it is most certainly worth the investment on the part of the Nation.

The Augustine committee specifically looked at the space station and made the point that, since space flight began, we have planned a space station program, and they reaffirmed their support of it.

At the National Space Council meeting, the Vice President, naturally, was there. All the departments were there. The President's Science Adviser also did an analysis of our work. After the National Space Council meeting, the Vice President wrote me a letter that reaffirmed the support of the President and the Space Council for the Space Station Freedom Program, and then the next day, I believe, we delivered our proposal for the restructured space station to the Congress. Later that week, the Vice President, Dick Darman, and I came up to the Hill and met with you and other leaders of our committees to brief it. So, in short, I think the team has done a magnificent job. The internationals are with us and I believe 1991 can be the year that we stabilize the program.

Senator MIKULSKI. Just to summarize your testimony, to be sure I and my colleagues are clear—first, when we committed to the space station, our European counterparts viewed this as a treaty obligation. So whatever we do is very serious for our own Nation and our relationships with our international counterparts.

The redesign is perfectly acceptable to our European counterparts. We have sharpened the definition of its mission to microgravity and life science research. We have restructured the way it will be built, meaning more will be assembled on Earth and taken up, therefore reducing the complexity of assembling in space and also all those EVA's.

Am I correct that that is essentially it?

Admiral TRULY. That is correct. I have a letter in writing from each of our international partners as a result of the restructuring that they are with us. We have defined a phased approach, as this committee directed us in our appropriations bill, that will support microgravity in the first few years during assembly, and then we will turn principally to the life sciences. So that is on the record.

SPACE STATION COST

Senator MIKULSKI. Admiral, I know you, the President, the Vice President, and the members of this committee all felt that we were on the same launch platform for the station. Now two things have occurred. One, the GAO report, and then some scientific questions. Let me raise the GAO concerns and hear your comments on this.

Last week GAO challenged the cost of the project. They said that NASA had underestimated the cost between now and the time the station is permanently manned by $10 billion. That is a big ticket situation.

They also said that NASA underestimated the cost after permanently manned occupancy by $24 billion.

Admiral, how would you respond to the GAO's recent report point by point, and do you believe that it reflects in an accurate way the cost of the station to NASA and the American taxpayer so we truly hear from Truly what we will be getting into in terms of the space station?

Admiral TRULY. Thank you, Madam Chair. Let me spend a few minutes to describe. There was a hearing last week that got quite a bit of publicity. I have had an opportunity again to go back and review the GAO's testimony at that hearing, although I had not been privy to it prior to the hearing itself. NASA stands by its proposal to the Congress as it has been presented as to what is in the content of our restructured program and to the estimated figures. Let me speak to two or three specific issues.

First of all, our restructured program clearly covers the development of the space station; it covers the transportation costs up to the point of the permanently manned configuration. It covers the people cost, and those dollars, to the best of our ability, including reserves, add up to $30 billion over this decade. Of that $30 billion, the development cost is $16.9 billion and those are in real year dollars.

We also identified to the Congress a couple of other specific issues so that the Congress would be aware of them, and this is part of the confusion.

One is that we have determined we will require an assured crew return vehicle at the station. However, that assured crew return vehicle does not have to start development for 2 or 3 years in order to meet the schedule, and we have not taken that program through the new-start process. It will have to be brought specifically to the Congress in 1993 or 1994.

Essentially, the reason we need it is that it is designed to be a minimum lifeboat so that when the shuttle is not there the crew has an escape capability. Frankly, as we pointed out in our program, we have not even defined the design of that vehicle. We do not know whether it would be a ballistic shape, a winged shaped or a winged body. However, to be totally up front with the administration and the Congress, we wanted to identify that.

Second, the way that we have displayed the budget structure for our agency over the years, agreed to with the Appropriations Committees, there are costs that are science related that are in the science budget. That is normal for the next shuttle flight, the last shuttle flight, and all of our operations.

The GAO then went further and took an estimate of an annual operation cost, multiplied it by 27 years, and added that to the figure. So we had a debate in this last week's committee hearing, in which I tried as best I could to point out that I believed the GAO was comparing costs that are not normally compared to the development of a project like this.

The biggest outyear cost and the biggest difference in that $10 billion that you mentioned was in the way that the GAO costed the transportation program. Rather than using the operation costs of the flights that would be used for the space station, they included the fixed costs of the entire shuttle operation.

If we did that, for example, in 1991 and 1992, and charged that fixed cost to the science program, over one-half of Dr. Lenoir's budget would be charged to science and not to the basic capability to be able to have a transportation program.

I simply have to disagree with that point of view. We can report to the Congress in whatever way the committees and the agency and OMB agree, but that confused it.

I want to state this very clearly. The only point that I felt very badly about last week is that, on the part of some, there was the implication that NASA was hiding costs from the Congress. I think we have done exactly the opposite. We have put our cost analyses and what is in each of them clearly on the table. I hope that perhaps this committee hearing today may help clear it up.

ASSURED CREW RESCUE VEHICLE VERSUS FIFTH ORBITER

Senator MIKULSKI. Thank you, Admiral, for reviewing line by line the GAO report.

My time has almost expired. I have one question and perhaps you cannot answer it at the hearing. This goes to the assured crew rescue vehicle, the so-called ACRV, which is slated to cost $1.6 billion, and GAO estimates it at $2 billion. Here is the question.

What would be more important to both a reliable space transportation system and also the safety of our astronauts, which I know you and this committee are deeply committed to. Would it be better to do an ACRV or to do a fifth orbiter? A fifth orbiter would be ready to go and rescue, if necessary, and yet also enhance our shuttle fleet which is aging and so on.

Admiral TRULY. In coming to the decision to invest in the assured crew return vehicle, we tried very hard over the last 2 or 3 years to find a solution that included the shuttle but simply could not make it work. In the simplest terms, there are two ways that you conceivably could use a shuttle. One is you could put a shuttle up and dock it to the station and leave it there. The problem with that is that it significantly changes the center of gravity of the station.

Senator MIKULSKI. It is just kind of big to be docked there?

Admiral TRULY. It is huge. The shuttle is about a 200,000-pound vehicle, including its propellants. So that did not turn out to be a rational approach.

Second, you could redesign the entire shuttle system and the ground operation so that it could be instantly available to do a rendezvous docking rescue mission. Again, we did look at some of those costs and they were prohibitive considering the reaction times that we would need if we had a crew on orbit that had been injured or had to be brought home.

So our concept has been to go for the no-frills minimum rescue vehicle. Our estimate is in the range of $1.5 to $2 billion. The GAO estimate was in the range of $2 to $3 billion. I do not know how to argue that because we have not done a detailed definition, but I can assure you that what we are looking for is the cheapest lifeboat that we can find.

I would point out, though that I think there will need to be a debate as to whether the Nation needs to build a fifth orbiter for other reasons. We are going to be using the orbiter for decades and for us to believe that we can go with our present fleet undamaged for any cause over all this period I think will keep that issue alive for the next few years.

Senator MIKULSKI. Thank you, Admiral Truly. I have used all my time.

I would like to turn to Senator Garn.

NEED OF A FIFTH ORBITER

Senator GARN. Thank you, Madam Chair.

Let me first of all follow along this last comment. I want to review in everybody's mind that originally five orbiters were proposed. This was many, many years ago. I have always felt before we ever had the *Challenger* accident that we needed a fifth orbiter in order to carry out the duties of the space shuttle. This was prior to space stations as well.

It seems to me that, with the space station, this makes the original proposal even more valid that we ought to have a shuttle fleet of a minimum of five.

That is what, frankly, amazed me. After the *Challenger* accident when the Reagan administration could not decide whether they were even going to buy a replacement orbiter and never did make that decision. Senator Ted Stevens and I made that decision, which brings up another point I would like to make in this budgeting process.

We never seem to learn. As the outside critics come back year after year and talk about cost overruns and delays, the point you made, Admiral, about *Endeavour*. Senator Stevens and I not only authorized and appropriated for *Endeavour*, but we did it up front for the entire cost of *Endeavour*, recognizing the way Congress plays the piecemeal game in each year with other budgetary problems robbing from NASA and function 250—space, science and technology—stretching out programs and then coming back and having you or your predecessors as witnesses and ask you why the cost overruns.

Well, you mentioned the *Endeavour* was finished on time and under budget because we appropriated the entire money up front on that project. I will guarantee you, years ago, if we had done that with the space station and with other orbiters, you would not be asking for the amounts of money you are asking for today.

So I would suggest that when we have cost overruns and delays that Congress at least deserves to share in the blame for our budgeting procedures which nickel-dime and spread things out over the years.

I want to repeat, up-front funding for *Endeavour* produced it on time and under budget, and that would apply to Government procurement. I have been convinced for years that across-the-board, multiyear procurement would save 25 to 30 percent in Government procurement, whether it is NASA, whether it is DOD, whether it is HUD. I do not care where it is. Of course, it is much more fun if we can play nickel-dime every year and issue press releases on how great we were each year rather than having multiyear funding. Then we cannot put out our press releases every 3 or 4 years on how great we are.

So I wanted to make the point very strongly that budgeting procedure affects these costs rather dramatically as well.

Also, I would make another observation that over my years here I am amazed at the expertise of GAO. This is an amazing organization that has the expertise to comment on every program in the Federal Government with such finality that they are always right. Is this a God-created agency down there? If it is NASA, DOD, HUD, EPA, it doesn't matter. You have all these Government agencies with experts who are specialists in various areas, but we call on GAO for a study and they can produce one on any subject with such certainty and finality that they are always right. That is absolutely amazing to me.

I have to start in general discounting GAO just from the standpoint of how they can know so much about so many other things. It is amazing, absolutely incredible. So I am not too concerned about GAO.

SCIENTIFIC USEFULNESS OF THE SPACE STATION

I would like you to comment, however, on the scientific report that came out, because I agree with the chairperson, Senator Mikulski, that you have met all the requirements that we outlined for you last year in the redesign of the space station, and instantly with the announcement of that we had criticism from the scientific groups. Would you comment on your opinions on that as you did on the GAO report?

Admiral **TRULY**. I would be pleased to.

There was a letter report that I got from the Chairman of the Space Studies Board, Dr. Louis Lanzerotti, who incidentally, is a long-term good friend of NASA. He was on the Augustine Committee. He heads the Space Studies Board, and in that role he is a member of the NASA Advisory Council.

I think, to be honest, that in the final preparations as we concluded the restructured space station study that we confused the Space Studies Board; if we did confuse the Board, NASA takes that responsibility. But I think that we did. There was confusion about whether or not there would be a life sciences centrifuge on board and what size it would be.

There was also a lot of discussion about microgravity.

Essentially, Dr. Lanzerotti's letter expressed to us the feeling that on the basis of science alone, and their belief that there was not a centrifuge for studies of small animals to be provided, the space station was not worth the cost.

I have since met with Dr. Lanzerotti a couple of times. We have briefed him. We have explained what the restructured space station has in the way of a centrifuge, which is a 2.5-meter centrifuge to be put in a node and to be available on the first flight after the permanently manned configuration is established. I think we have gotten that straight.

As to microgravity sciences, I think that we simply have some disagreement as to what the eventual value of microgravity sciences from the space station will be; or, I will say, that is a personal viewpoint. A single discovery, a single breakthrough in microgravity sciences could change the equation of that science, and I believe the space station will be able to have the power available and the low microgravity levels to do excellent microgravity work.

However, I have to agree that if that was the only reason that we were going to build Space Station Freedom, it would not be worth the cost. We have to build a space station if we are going to learn about life sciences. There is no other way to study the effects of weightlessness on the human body other than to put the human body in the environment of the absence of gravity. So, if this Nation is ever going to explore, whether in fiscal year 1991, 2011, or 2030, we have got to do that science, and the place to do it is the space station.

So I think that there are clear reasons for building the space station that are far greater and expressed more eloquently than by me on the part of the Vice President and the Science Adviser. There are many reasons to move forward to build a facility like Space Station Freedom. Science clearly is one of them. I do believe that we have narrowed the gap in our conversations with the Space Studies Board.

I am sure, if you would like to delve into that further, Dr. Fisk could talk much more specifically about it; but I think we have cleared the air with the Board. There will continue to be disagreements.

Remember, I would point out that the decision to go to the moon by John F. Kennedy in a speech here in Congress was made against the advice of his science advisers at that time. Some projects on the part of humankind have to be made up of many reasons. Science is just one of them.

Senator GARN. Well, over the years there have been various scientific groups who were all in favor of a space station if it was designed the way they wanted it. I think we need to recognize that there have always been some critics, and it would not make any difference what design you decided upon. You will find some group or scientist who will say that is not the way it should be done.

I think we have to recognize the fact that there are differences of opinion and that we are designing a multifunction space station. I think it is important to emphasize what you said, that if we are just going up there to do life sciences, no. It is a very expensive means of doing that.

I would also point out I had the opportunity to visit Star City extensively last August. I had the opportunity to go through the MIR space station. In my opinion, you do not have to read Russian to be able to figure out that the Russians are not doing any serious science up there. They are setting long-time endurance records for having people up there, but our redesigned space station is so much more sophisticated and would produce so much more in the way of results and scientific data than MIR.

I have even heard some scientists say, "Well, why do we not just rent some space on MIR?" That would be the biggest waste of money of all unless we just want to send some people up there to orbit and let their bones demineralize for 360 days. We can do that.

ADVANCED SOLID ROCKET MOTOR

Let me ask you, Mr. Thompson. You and I have had many discussions over this table on ASRM. I made some comments several years ago that I did not know how with such certainty you could predict the additional payload and safety and so on. Now that ASRM is just 2 years underway, it has nearly doubled in cost and the promised performance has declined from what we originally talked about.

Do you still feel the ASRM is worth pursuing?

Mr. THOMPSON. Yes; I do, Senator. You are right; we have had a lot of discussions. As a matter of fact, we just reviewed the performance the other day. I believe the payload gain today is about the same, or perhaps even higher, than we first described to Congress. I believe it is about an additional 13,000 pounds of payload capability which will increase the capability of the shuttle by 25 to 30 percent.

The cost and schedule have stretched out a little bit. It is nowhere near double. We are in the middle of a review now and I suspect within the next month or so we will actually know the facts on that. It is a very ambitious program, as you know. It focuses on the automation of the facility and the reliability. I am extremely confident that we will achieve the performance that we committed to this committee as well as the reliability.

I would hasten to add that the existing solid rocket motor is doing very well, as you know. We have now successfully flown 15 missions and we have detected no anomalies at all. But we have a long way to go and we will certainly keep this committee and you, because of your interest, posted on any problems with the performance, which I do not expect. When we complete this cost review we will certainly keep you updated on those figures.

Senator **Garn**. Thank you. My time is up on this round.

Senator **Mikulski**. Thank you.

Senator Kerrey and Senator Gramm, with the arrival of General Schwarzkopf we hope to conclude the hearing by 11 a.m. That is why we are holding close to our own time limits. We will keep on going up until then, and if you want to stay longer you may.

Senator **Gramm**. Madam Chairman, thank you. How generous you are, Madam Chair, and we appreciate it. [Laughter.]

Senator **Mikulski**. Senator Kerrey.

PREPARED STATEMENT

Senator **Kerrey**. Thank you, Madam Chair. I do have an opening statement I would like to have made part of the record and a longer list of questions for Admiral Truly.

Senator **Mikulski**. Without objection.

[The statement follows:]

Statement of Senator Kerrey

Admiral Truly, I, too, welcome you and your staff back to the Subcommittee.

As I reviewed the NASA budget for fiscal 1992, I had something of a sense of deja vu. My reactions, I found, were not unlike they had been over the past two years.

I came to the budget with a positive attitude. I recalled, as I had before, the pride I felt—from a veterans hospital—when Apollo landed on the Moon. I recalled the excitement of early shuttle launches and the look of awe on the faces of millions of youngsters who dared to dream that they too might some day share the space adventure. I remembered the enthusiasm of my own son for Space Camp. And, I remembered the rave reviews which the NASA LASER truck got when it visited Lincoln, Nebraska. I thought about the Voyager pictures and the hopes which we still have for Hubble.

And, yet I find that something is missing. The dream is blurred. There's a lot going on at NASA, yet there is the feeling that something's not quite right.

Well articulated scientific arguments in support of the station are missing. In fact, many in the scientific community are questioning the scientific value of the station. The man on the street in Broken Bow Nebraska and thousands of similar towns across this country is confused as to why we are going to spend $30 billion of his money for this program. Exactly what are we doing? What is our return going to be?

Last year, we looked at the Space Exploration Initiative and Congress eliminated funding. Here it is again—in an even tighter budget year—with a $94 million price tag.

We need shuttle upgrades and improvements. I agree. We need to begin work toward a new launch system. We need to insure that space science is NASA's highest priority, as the Augustine report recommended. In my opinion we need to do even more with the unique capability NASA has in education, especially in attracting and motivating students and assisting teachers.

It is a tall order—made even taller by budget constraints and at least a perceived lack of focus. So, I look forward to your testimony and responses to questions and to working with you to develop a strong—and viable—program.

SPACE SCIENCE EFFORTS

Senator **Kerrey**. I have listened to your answers on the space station to both Madam Chair and to Senator Garn. I remain concerned about the scientific usefulness of it relative to what could be done with an alternative investment. So, I would say that I support the space station, but it is a very tentative support.

It seems to me what NASA has done for the United States is that it has engaged Americans in the task of scientific exploration and made us very excited about scientific exploration. It has enriched the community of America through scientific exploration.

Part of my concern with the space station is an overall concern that there is a lack of focus. I fully acknowledge that after only 2 years on the job there is the possibility that I have not quite focused enough on what NASA is doing with the station. But, I am concerned about it.

On the other hand, I am intrigued by your space science efforts. Can you spend a little bit of time with me on the space science effort? The Augustine Commission indicated they thought that should be NASA's No. 1 priority. Do you share that conclusion and can you, perhaps, make some comments on that?

Admiral TRULY. I would love to have a minute to talk about our space science program. Before I talk about it in general, though, let me leave on the record one thought from my previous conversation about Space Station Freedom. Even though we continually argue back and forth to make sure that we are able to deliver the capabilities we plan to provide to our scientific users, there is a lot of give and take. Let me make it crystal clear, however, that I believe we have excellent relations with both our life sciences and microgravity communities, and that NASA is committed to providing the best, world-class capability on the space station for those communities. We have a number of years to iterate and build those, and so I feel comfortable that when the station comes along it will meet their requirements.

Our science program, if I might comment very briefly, is the jewel in NASA's crown. It is the program that excites American people about space. I saw a photograph just yesterday of the planet Jupiter, of the great red spot and some features on the planet taken by the Hubble Space Telescope. It fills the frame. It is a gorgeous color. There are things in the frame that are not understood. Therefore, it is clear from photographs of either the planets or the Milky Way or the stars in all the wavelengths at which our science programs look—that we do not understand the universe surrounding us, and it is that search for knowledge that I think is one of the, if not the, most intriguing part of the entire space program.

There are a lot of arguments about manned versus unmanned flights. I think that is a very destructive argument. As a matter of fact, as a former astronaut myself, and for the people that were here earlier, I can assure you that the astronauts in the Astronaut Office are just as excited about our unmanned missions, whether they be to the planets or the stars or the Earth itself.

I believe that science has been on the top of our list, and I would point out for the sake of completeness that people say science is No. 1, but for the Augustine Committee, that was only one-half the sentence. What they said was, "We believe science should be the first priority and should continue to be funded at approximately the current fraction."

I took that as a compliment to our science program because, to me, it told me that they believe not only that we have recognized the science program is of high priority, but that we are treating it as well as possible within the budget. I do not know if that helps.

FUTURE SPACE SCIENCE PROJECTS

Senator KERREY. It does help.

Could you spend a little time on space science other than the Mission to Planet Earth, and also talk about what you see from 1993 to 1998. What is in the future, what is on the drawing boards as possible science projects?

Admiral TRULY. Yes; I can. Dr. Fisk may want to correct me, but since the *Challenger* accident, NASA has set out to put in orbit a series of science missions that are absolutely stunning: the Hubble Space Telescope and the Gamma Ray Observatory, the first two of four great observatories, and the Cosmic Background Explorer are observing the universe in different wavelengths. We have a life sciences mission that is coming up next month. We have the Mars Observer mission that is on dock for launch in a couple of years.

All in all, I think that one-half or more of the 15 flights that we have already flown since *Challenger* have been science missions, and, looking out into the future, there are something like 35 or 36 additional science missions over the period of the 5-year horizon.

Also, I would be quick to point out that many of these missions are long-term endeavors. Hubble is a 15-year designed mission. Gamma Ray Observatory is a mission that we planned for a duration of a couple of years but which we think will operate for 8 or more. I did not mention the Magellan spacecraft today mapping the planet Venus, and on the cover of Time magazine, U.S. News and World Report magazine and the latest issue of Science magazine which publicize the results from these programs.

I believe in the next 10 or 15 years the American people are going to see a flood of interesting, exciting science information that is coming from NASA missions. I purposely steered away from the Mission to Planet Earth, although I think that that Earth sciences work over the years is going to change our knowledge of this fragile planet that we live on.

SPACE SCIENCE FUNDING

Senator KERREY. Can you kind of connect it to some of the other things we are talking about here? Do space science projects end up sort of getting robbed in the struggle for resources? Can you give us some sort of sense of the impact other budget requirements have had on space science and what we need to do in order to sustain some of these space science efforts?

Admiral TRULY. I think that is definitely a misperception. I would ask Len. I think Dr. Fisk's——

Senator KERREY. It is a misconception, I take it, robbed in order to——

Admiral TRULY. Yes; I think his plate is full to overflowing with science missions today. It is not that given unlimited money——

Senator KERREY. So you think there is actually less concern about NASA doing NASA's recommendations than what Congress itself does in an effort to balance the competing needs for appropriations?

Admiral **TRULY**. I think there is a terrible threat today in the 1992 budget deliberations as to the levels of the 602(b) allocations that will go to the subcommittees that fund NASA, not only NASA but the National Science Foundation and so forth that are undoubtedly, if the threat becomes reality, are going to squeeze the ability to do these exciting programs.

The program I am closest to, naturally, is the NASA budget, and since we are the larger part in these subcommittees, I think the threat will be largely directed toward us. That is why I love the opportunity to come up and make our case.

Might I ask if Dr. Fisk would like to——

Dr. **FISK**. I think you said it very well. To date, the science program has been treated very well and very effectively. I think the result of this activity that you see which we legitimately call the second golden age of space science is a result of that sustained funding over some years.

We are, of course, exactly like the rest of NASA, in that we have a budget in 1992 that is to support those programs which are either on orbit or about to be launched or have been started in previous years.

The ability to sustain this level of activity is entirely going to be a function of the budget level that can be obtained in 1992, as is the case with the rest of the NASA budget.

Senator **KERREY**. Thank you.

Senator **MIKULSKI**. Senator Gramm.

Senator **GRAMM**. Thank you, Madam Chairman.

Since I missed the time for my opening statement, let me just make a few comments and then use the remaining time I have for questions.

First of all, I think it is very important that we make it clear that we are not going to let the space station stand or fall on science research alone. I think the National Research Council may have gotten the right answer when they concluded that you cannot justify the space station on science alone, but I think they asked the wrong question.

AMERICA'S LEADERSHIP IN SPACE REAL ISSUE

The real issue here is not life sciences, the real issue is not microgravity experimentation; the real issue is America's leadership in space. That is what we have to pitch it on and I think if we are going to maintain our lead, we have to build and operate the space station.

Second, let me say that I am always astounded when Congress mandates a reduction in the size, scope, and cost of the space station and then we have experts who are amazed that when you cut funding by $6 billion over 5 years, a 15-percent reduction, that you get less capacity.

Quite frankly, if you did not get less capacity I think you ought to go back and fire all the people who designed the original space station. Apparently all these scientists on all these commissions were shocked that if you cut 15 percent of the funding, you affect capacity. I was not shocked.

Let me also say that Senator Garn and I are in total agreement about the GAO. GAO is a great organization and served a purpose when its objective was to bring facts to the Congress. A question would be, Is it whiskey in the barrels at warehouse 14A? They would go out, break one of the barrels open, stick their finger in, sure enough it is whiskey, and they come back and tell us.

But I reject the idea that they are experts on everything and that they can answer any question on any subject. I do not blame GAO as much as I do Congress, which asks them to do things they cannot do.

I would have to say, however, that they are increasingly unscientific. When they did their study on the space station, they began by admitting that no one can quantify the benefits, then they go on, based on cost, to conclude that maybe it is not a good idea. I think any scientific analysis would show that it is impossible to quantify costs relative to benefits when you cannot quantify benefits.

Let me also say that I think we are fast reaching a moment of truth about our space program. In 1988, Congress cut the President's proposal by $500 million. In 1989, we cut it by $800 million. In 1990, Congress cut it by $1 billion. In 1991, Congress cut it by $1.2 billion.

While I am on the subject, let me say to all these different scientific groups who somehow believe they are being crowded out by the space program, I see no evidence that one penny of these cuts went to science. In fact, the space program is being cut, science programs in general are being cut, because there are some big constituencies that have a return in the next election, and there are not big constituencies for programs like space exploration that have a return in the next generation.

So whatever different scientific panels there may be which believe that somehow by not spending money on space we are going to spend it on science or the National Science Foundation or some other area of science, I just urge them to go back and look at the facts. I see no evidence whatsoever that of the roughly $3 billion that has been cut out of the space program in the last 5 years, that one penny of that has gone to science.

The truth is, the President has presented the strongest science budget ever presented by a President in American history. My guess is that when we finally appropriate, we will find that Congress has underfunded all of those major science programs.

So let me sum up and then try to pose one question in the time remaining.

I am very concerned about the space station. I think the new design is workable. I think it is less capable, but that is what you get when you spend 15 percent less. I believe that we have to make an all out effort to fund this, and at some point we have to have NASA say look, if you want us to do this job you have to give us a certain amount of money and if we continue to be cut relative to the request we cannot be judged on performance based on what we promised to do with the amount of money that we asked for.

SPACE STATION FUNDING

Senator GRAMM. Maybe I ought to just pose my one question as follows. In terms of the budget that you have sent up, which is a reevaluation of the space station and dramatic reduction in cost, do you believe that that figure represents basically what you have to have to achieve your goals?

Admiral TRULY. Yes, I do. We have got to get the space station off this funding seesaw that it has been on for the last several years. This exercise that our international partners and NASA went through over the last several months has taken some content out of the program that was required by the lowering of those budgets, and we need the budgets that we asked for to stabilize the program.

I am confident that if we get the budget that is in this restructured program, 1991 can be the year that we stabilize the space station program and we can make a year's progress toward flight in 12 months.

The content is out of it. I iterated a list of that content; but we retained the quality of the program. It is going to be an absolutely world-class space station in comparison to all of our previous efforts—not only to the present Soviet MIR, but to what they project in their MIR–2 to have on orbit in the mid-1990's.

Without the funding that is requested, this country is not going to see a space station.

Senator GRAMM. Thank you, Madam Chairman.

Senator MIKULSKI. Senator Gramm, did you have any other questions?

Senator GRAMM. I am through.

RESULTS OF A BUDGET CUT

Senator MIKULSKI. I would like to just follow up on Senator Gramm's question and the others that have been raised here. This is really kind of an eyeglass question on the station. Then, since we have some time, we can do another round with the members.

In our budget agreement in the fall, we put a cap on domestic spending, kind of a mini Gramm-Rudman. We will have only $10 billion more to spend for all of domestic discretionary spending. Just a few weeks ago the House and Senate budget resolution, while not binding on appropriations, each recommended cuts in the rate of increase by $1.9 billion. In other words, the budget resolution suggested to the Appropriations Committee to cut NASA's budget by $1.2 billion.

Our question to you would be, If we have to do that based on our allocations, would that mean is the space station worth funding or saving?

Now know these are not my personal preferences but what the committee will have to ask itself.

Admiral TRULY. Sure.

Well, first of all, as I mentioned in my opening remarks, the difficulty this year is for NASA to have a large budget cut—and I hope that in the end we will not sustain a budget cut of that magnitude.

The problem that we have is that 99 percent of this $15.8 billion request is needed for ongoing programs. These are the programs that this Congress has appropriated and directed that we do in past years. The new-start money that is in this request is very, very small. I think that a $1.2 billion cut to NASA would require me to come to the leadership of all of our committees and have a summit and suggest that we have a look at what kind of space program we could have under that scenario. A cut that deep would put not just the space station on the tble for a relook but the space science programs that are building up—AXAF is appropriated and is moving on, and the CRAF/Cassini project. Across the board, we have ongoing projects that are in that $15.8 billion request.

So I could only say that a cut that big would cause us to look at all programs. But after what we have been through on the space station, and what the Congress directed us to do, and the funding runout that the Congress gave to us in considering our response, I would argue very hard that 1991 is the year to stabilize the space station program, because I think that this restructured proposal is worthy.

Senator MIKULSKI. So Admiral, what you are saying is the cut recommended by the House and Senate budget resolutions would be devastating not only to the station but would have across-the-board ramifications, very serious ramifications in space science and also in what we would call our people and facilities program which was also recommended by the Augustine Report?

If we look at the Augustine Report as our navigational chart, they talked about the Mission to Planet Earth. This would have ramifications for that; that we needed to have a robust space science program, that we needed to do the station to meet our treaty obligations but not do it in a skimpy way but do it in a way that was affordable and achievable; and last, but not at all least, that we had to make a major investment in our people, our civil service corps, and really deal with the very serious backlog in maintenance and the need to modernize our facilities.

Is that kind of the NASA core that Augustine agreed upon, the administrations agreed upon, and you think is reflective in this budget?

Admiral TRULY. It absolutely is. Norm Augustine said more eloquently than I that they recommended a balanced space program, and in this very hearing room, I think. Certainly at last year's appropriations hearing, we had a discussion about the core NASA—the people, the facilities, the transportation capability, the tracking—those core things that are required to have in any space program. At a $1.2 billion reduction, you would see relooks across all of those elements.

Frankly, with that reduction I would recommend that sort of relook because you cannot have a balanced program without maintaining that core, maintaining a science program, maintaining our other endeavors. I just think it would take a very difficult relook at that level.

CHAIR'S CLOSING REMARKS

Senator MIKULSKI. Well, Admiral, I know my time has expired. I am going to ask Senators Garn and Gramm to do another round of questions.

Let me say this. I think Senator Garn said it very well. We need to get the President involved at the highest level for our allocation.

I have publicly said that I embrace the Augustine Report as a navigational chart, not necessarily a blueprint on every significant item, but I think this core is NASA's core. I intend to fight very vigorously for a 602(b). I know we are going to do it on a bipartisan basis. I think the core you outlined is the core that I want to follow.

We had many questions today on Mission to Planet Earth and space facilities. Because we will not get to them, we do want them for the record, and I want it to be clear that we would be interested in pursuing them.

So my own position is to really be a very strong advocate for the NASA core. If I might say, of all the agencies that this subcommittee oversees, NASA is the one that has the clearest sense of what its core program is rather than a conglomeration of line items on which we are not really clear on where we are going for the year 2000. I feel very strongly about it.

Having said that, I would like to turn to Senator Garn.

SENATOR GARN'S CLOSING REMARKS

Senator GARN. Thank you, Madam Chair. Let me make just a few comments. I have no other questions, but I want to place this entire issue in perspective.

NASA's entire budget is only a little over 1 percent of the entire national budget. I constantly am asked questions about the NASA budget and how it apparently is robbing other programs.

If we eliminated NASA, we would have relatively no impact on the Federal budget or the deficit by eliminating slightly over 1 percent. So we nickel-dime it. The amount of money that the budget committees are talking about is nickel-diming it. It is playing games with it.

We also do something else in the budget that I think is terribly unfair. Every time we talk about something like a space station, we talk about the entire life-cycle cost, not only the research and development and the production and the cost of putting it up there, the salaries of the astronauts and the maintenance and everything for the entire term. We do not do that in other programs.

Take food stamps, and I am not here to argue against food stamps. Multiply $15 billion per year for 30 years, and somebody would say, "Hey, you want to spend $250 billion for food stamps?" They might have a different attitude.

So we disclose the cost of NASA unfairly, I think, rather than on a year-by-year basis, how much it costs each year. We total it up, or at least the critics do, and present the worst possible scenario for it.

Now it is not just NASA. My interest goes beyond that. It is the whole realm of function 250 that we are shortchanging, and I believe the Budget Committees this year have mindlessly gutted function 250—space, science, and technology. It goes beyond that to the National Science Foundation.

If I had my way, we would have a Cabinet-level position not just for NASA but for space, science, and technology and separate it out from Veterans and EPA and all the other housing and competing interests within this subcommittee. The alignment of agencies within this subcommittee makes no sense at all. HUD and Independent Agencies was what was left over, and they put them all together.

Science and the future should not have to compete directly with Veterans and Superfund and these other programs, but it does. We do not have enough math and science teachers in this country. We are not training enough engineers. So it is across the board. It is not just NASA.

Even function 250, the entire area is a relatively small part of the budget. Congress is dramatically short-changing the future of this country and our standard of living and endangering our technological base versus other countries. We are not training enough engineers and scientists compared to the Germans, to the Japanese, and to the Soviets, and we are going to pay for that dramatically 10 or 15 years down the road.

So I just want to emphasize it is not just a space station that is at stake. It is our competitiveness in this world, our position as a superpower, and the technological edge that has given us the standard of living that we have.

Unless Congress starts to recognize that and quit pandering to the next election and looking at votes on programs that have immediate payback rather than looking down the road to the future 10 or 15 or 20 years, we are not going to have a space station, we are not going to have a valid scientific program or a technological base in this country.

So much more is at stake, gentlemen, than just a space station. That is only symbolic of what I think we have as a problem in Congress and properly having some vision and some foresight and looking to the future.

I have no other questions, Madam Chair.

SENATOR GRAMM'S CLOSING REMARKS

Senator GRAMM. Madam Chair, I am not going to speak long because we are all saying the same thing. There is no doubt about the fact that we submit science and the space program to an entirely different standard than we force HUD and AFDC and thousands of other programs that have big constituencies.

I am afraid, however, that the problem is not one of differential standards. Congress submits these programs to these standards because they are programs that do not have a broad political base that is activated in a short period of time.

I think Senator Garn is right. Let me make it clear. Under the budget constraint we have, we could increase the space station's funding fivefold, so there is plenty of money there. The question is where is it going to go?

What worries me about Government spending is we not only spend a lot of money but we spend it on what in a family would be called consumption. Programs that have instant gratification through the political process have a very strong advantage. It may well be that this is the year that we are going to have to make the case and force Congress to choose.

On the space program in the last 5 years, we have really drifted on sort of an inertial basis based on the divisions that have come out of appropriations. We have not had a big showdown vote on space funding. Maybe this is the year we are going to have to have it so people know who is and who is not supportive of space and science.

Now I do not suspect that there is a huge constituency out there for either, but I would like it to be part of the public record. I think it is very important.

We all three are saying the same thing, so I would simply like to thank you for the good job you have done under very difficult circumstances. We often compare the space program today to the space program of the 1960's. I think the mission today is more difficult. I think the easy, glamorous stuff we have done. I think it is easy to run a program when you have a blank check. There are going to be no more blank checks.

I think, Admiral, you are doing a good job, and I appreciate it.

Admiral TRULY. Thank you, Senator.

Senator MIKULSKI. Admiral Truly, we have many questions we would like to review with you on the people and facilities, the transportation system, space science, science and education.

It is 10:55 a.m., and I know my colleagues still want to go to the Schwarzkopf welcome, so we are going to recess this hearing. We thank you for your cooperation. We are going to submit these questions for the record.

We have a lot of work to do in terms of getting our own allocation, and then once we establish that we look forward to working with you on a bipartisan basis on essentially the must do list for NASA.

We thank you for your work and we thank all the people at NASA for their cooperation.

Admiral TRULY. Thank you, Madam Chair.

ADDITIONAL COMMITTEE QUESTIONS

Senator MIKULSKI. We will submit the balance of the questions for response in the record.

The following questions were not asked at the hearing, but were submitted to NASA for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR MIKULSKI

Budget Priorities

Question 1: At our hearing last year, you said that NASA's people and facilities were your highest budget priority. Does that statement mean that the 8 percent increase requested in FY 1992 for people and facilities is still at the top of the Agency priority list? If not, what has changed since last year?

Answer 1: The question of priorities is a very difficult one, particularly in times of restricted financial resources. Decisions concerning the priority of NASA projects involve judgements on current requirements, national priorities, prior investment and project status. Furthermore, priorities can change in the face of reductions, depending on the size and circumstances of those reductions.

I have repeatedly made the point in testimony on this question that it is vitally important that this nation have a balanced space program. NASA is a complex agency with a very diverse and challenging set of missions that range from aeronautics research, space technology, transportation and space flight, to space science, exploration and education. The Augustine report emphasized, this point particularly in relation to the Space Science program. While the report highlighted the program, as very important to NASA, it emphasized that the proportion of funding for science projects is appropriate at the current level. The FY 1992 budget request for NASA represents a well-balanced program that will continue to move this nation forward in space exploration. However, 99 percent of the budget request for FY 1992 is for ongoing programs approved by Congress in previous years. The application of any large reduction would have to affect ongoing work and have across-the-board ramifications to the entire NASA program, regardless of the priority of the activity.

Question 2: Since sustainable and continued access to space is at the heart of a successful civilian space program, would funding of the space station and space shuttle programs be the Agency's second and third highest priorities respectively?

Answer 2: The question of priorities is a very difficult one, particularly in times of restricted financial resources. Decisions concerning the priority of NASA projects involves judgements on current requirements, national priorities, prior investment and the project status. Furthermore, priorities can change in the face of reductions, depending on the size and circumstances of those reductions.

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Question 3: How does the Agency reconcile placing very high priority on station and shuttle when the report of the Advisory Committee on the Future of the U.S. Space Program (Augustine Committee) states categorically that space science is more important than space station, and lacking funds to do both, space science should be funded?

Answer 3: The question of priorities is a very difficult one, particularly in times of restricted financial resources. Decisions concerning the priority of NASA projects involves judgements on current requirements, national priorities, prior investment and the project status. Furthermore, priorities can change in the face of reductions, depending on the size and circumstances of those reductions.

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Question 4: The FY 1992 budget request calls for increases of 21% for space science including three major programs: CRAF/Cassini (126%), AXAF (109%), EOS (76%). Could you rank these three in their order of importance for answering key scientific questions for either the United States or the international community?

Answer 4: Each of these missions is the highest priority within its respective science discipline: EOS in Earth Sciences, CRAF/Cassini in Planetary Exploration, and AXAF in Astrophysics. EOS was identified as the highest priority long-term spacecraft program by the Earth System Science Committee, a sub-group of the NASA Advisory Committee, in its comprehensive 1988 report. The Committee on Planetary and Lunar Exploration (COMPLEX) of the Space Studies Board confirmed, in its "Assessment of Solar System Exploration Programs (1991)," that CRAF/Cassini is the highest priority mission in each of two areas of planetary exploration: CRAF in exploration of primitive bodies, and Cassini in outer planet exploration. And, AXAF was selected as the highest priority major new program recommended for the decade of the 1980s by the Field Committee in 1982; this priority was reaffirmed by the Astronomy and Astrophysics Survey Committee (Bahcall Committee) earlier this year.

Question 5: Isn't it fair to say that since Mission to Planet Earth will help us answer questions on the future of our own planet, that it should enjoy the highest priority?

Answer 5: Mission to Planet Earth is clearly one of NASA's highest priority programs. It will provide us with an unprecedented opportunity to understand the current state of our environment and many of the forces which influence global change.

However, Earth Science missions alone cannot provide us with all the data that is needed to fully understand the Earth as a system. A balanced space science program is crucial, since space science programs in other scientific disciplines provide important data that contribute toward our understanding of the Earth. For example, Space Physics programs provide detailed information about our Sun and the Earth/Sun system. Planetary exploration programs provide us with an opportunity to compare conditions on Earth with conditions and processes on other bodies within our immediate celestial family. Astrophysics programs provide us insight into the past history of Suns like our own, as well as an understanding of the physics of celestial objects.

In addition, understanding the effects of global change would not be complete without an understanding of how these changes affect the humans who are dependent on the Earth for our existence. NASA's life sciences and materials sciences programs provide the opportunity to explore the effects of changes on the biological and material life found on Earth.

Each discipline within space science offers a unique perspective on life and the Earth environment. Each adds to our Nation's scientific research base and allows scientists in each field to continue U.S. leadership in space science research.

Question 6: If a reduction in the Agency budget request of $1 billion were necessary and you had a choice in making the cuts, where would you make them?

Answer 6: The question of priorities is a very difficult one, particularly in times of restricted financial resources. Decisions concerning the priority of NASA projects involves judgements on current requirements, national priorities, prior investment and the project status. Furthermore, priorities can change in the face of reductions, depending on the size and circumstances of those reductions.

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Strategic Plan

Question 7: At the hearing last year NASA was questioned about its long-range plan. The Administrator conceded it to be a "critical management tool." What is the status of the plan? When will it be made available to the Committee?

Answer 7: Last year significant progress was made in developing a NASA Strategic Plan; however, momentum was deliberately slowed down during the deliberations of the Advisory Committee on the Future of the U.S. Space Program. Since the issuance of the Committee Report near the end of 1990, efforts to complete the plan have proceeded. We anticipated having a completed product early this Summer; however, the current controversy over the FY 1992 budget request will obviously impact our strategic planning. Should resolution be reached quickly, we should be able to provide the Committee the NASA Strategic Plan not later than the end of the current fiscal year. In any event, the development of the Plan will remain an important objective and will be provided as soon as it can be developed.

Budget

Question 8: What is the Agency policy with respect to reserves for the various projects? What is considered by the Agency to be a "reasonable" level for reserves? Which of the current projects is funded with reserves less than this "reasonable" level?

Answer 8: The policy of this agency is to assign reserves on a project by project basis depending on the assessed level of difficulty of the particular project. Reserves are primarily assigned to flight projects. The more complex the project and the farther from completion, usually the higher the reserves. Factors such as technical challenges, technical inheritance, size and number of major interfaces involved are considered in this assessment. The agency considers a reasonable level of reserves to range from 10 percent to 35 percent depending on the extent of these uncertainties. Currently, our major flight projects have reserves in this range, with the exception of those nearing their launch date, which have very little or no margin remaining.

Question 9: Cost overruns continue to be an issue. What missions or development projects face overruns in excess of five (5) percent in FY 1991?

Answer 9: Comparing the FY 1991 Congressional budget request to the most current FY 1991 Operating Plan, dated May 31, 1991, two projects have experienced cost overruns of over five (5) percent for FY 1991. These are Mars Observer (+28 percent) and TOPEX (+18 percent). Funding increases for both Mars Observer and TOPEX were needed to maintain current launch dates.

Space Station

Question 10: In the judgement of the Agency, is the space station worth saving if the cut in NASA's FY 1992 budget request reaches $1 billion or more? Is so, why?

Answer 10: Although NASA would have to undertake an assessment to understand the impact a cut of this magnitude would have on its various programs, we believe the answer is yes. As we have stated in testimony previously given to the Congress, a "balanced" space program is essential for the country. Any program that NASA recommended would make every attempt to maintain a balanced space program and continue the Space Station Freedom program which represents the future of the manned space program.

Question 11: The space station redesign has been criticized by the National Academy of Sciences and others who say it does not provide enough capability in either microgravity or life sciences to justify its cost. Do you disagree with this assessment? Why?

Answer 11: During the restructure process, NASA placed the space science agenda at the forefront of the Space Station Freedom Program. At the outset of Man-Tended Capability, the Space Station will conduct state-of-the-art experiments in the fields of life science and microgravity research. However, it is always difficult to put a price tag on the value of basic research; it is equally difficult to state that the experimentation is or is not cost effective.

Basic research provides the building blocks that other scientists and venture capitalists can then transform into marketable products. The initial investment is significant but a new discovery could lead to incredible returns for the scientific community, the nation, and the world. The cost is justified in order to further United States scientific and economic goals. The restructured space station provides more than enough capability for life science and microgravity research. Nonetheless, major criticisms leveled against the space station concern electrical power, centrifuges, crew size, and laboratory size and space. Although we concur on the importance of these capabilities, we are convinced that the redesign fully complies with these needs.

Microgravity and life sciences power requirements will be available under the Space Science and Applications (OSSA) power allocation. OSSA will be able to utilize 65 percent of the electricity available during all phases of operation. At Permanently Manned Capability, the power available to the user will be greater than three simultaneous Spacelab module missions, such as SLS-1. The current allocation allows for full utilization of the proposed life sciences and microgravity experiment hardware.

The Space Station will install a 2.5-meter centrifuge and the associated animal holding facilities. This will be added very shortly after Permanently Manned Capability is reached.

The Permanently Manned Capability (PMC) crew size was reduced from eight to four during the restructuring. This reduction will necessarily increase the amount of time required to develop a full set of statistics on long-term exposure to space; scientists will still be able to gather important data on this subject. Similarly, during the Man-Tended phase, a dedicated payload crew of up to four will be available to operate microgravity experiments. We hope to increase crew size to eight in the follow-on phase.

Question 12: With the 2-3 shuttle utilization flights each year during the station's "man-tended" phase, will we get sufficient microgravity experiments from the station to justify its cost?

Answer 12: The very concept of utilization flights during the assembly sequence was originated in order to ensure that science, applied research, and technology activities during the Man-Tended phase are optimized by making them distinct and isolated from the construction and verification activities. Between utilization flights, periods of up to 45 days will be available specifically for microgravity experiments and will provide a quiescent microgravity acceleration environment unhampered by crew activities and docking maneuvers.

The utilization flights provide ample opportunity for research during the Man-Tended phase, including ongoing, non-tended experiments when no crew is present. The Space Shuttle will provide a dedicated payload crew of four during the Man-Tended phase. The data handling, downlink, and power capabilities will exceed the current Spacelab capability.

After Permanently Manned Capability is reached, the Space Station will furnish a year-round microgravity environment, expecting to provide exceptionally quiet periods lasting at least 30 consecutive days. The Space Station program has also committed to building into the station architecture a U.S. Laboratory Acceleration Mapping System to monitor and facilitate control of the microgravity environment. Additionally, the Space Station will implement a vibro-acoustic control plan. These measures will maximize the utility of the Space Station's microgravity environment during the Man-Tended and the Permanently Manned phases.

Question 13: Why is the proposed Assured Crew Rescue Vehicle (ACRV) for the station slated to cost $1.6 to $2.1 billion?

Answer 13: The ACRV project will be an entirely new development effort for NASA. Our intent is to provide a minimum lifeboat-type capability with the simplest design and lowest possible cost. The preliminary development estimates currently include costs for Phase A and B definition work, Phase C/D design and development work, a test vehicle, two flight vehicles, flight testing, and initial spares. A specific design has not yet been selected. Although there are similarities between some of the potential ACRV designs and past NASA projects, the proposed ACRV is an entirely new vehicle. A large cost driver for the project is the requirement for its systems, particularly the life support systems, to be compatible, integrated and proven with those of the Space Station. A definitive estimate will not be possible until the Phase B effort reviews the design options.

Shuttle

Question 14: The shuttle operation and production budget is scheduled to increase by $250 million in FY 1992. Why hasn't the cost-per-flight of the shuttle gone down more as the flight rate goes up? Isn't that supposed to be one of the benefits of more shuttle flights -- that we develop an "economy of scale"?

Of the $246 million increase from Fiscal Year 1991 to Fiscal Year 1992, $12.5 million is in the production budget and $233.6 million is in operations.

The Space Shuttle's cost per flight does indeed vary as a function of the number of flights flown in a given period and it is decreasing as the flight rate goes up (the Fiscal Year 1992 budget contains nine flights in Fiscal Year 1992 versus the eight flights we planned for in Fiscal Year 1991). The $233.6 million operations increase in Fiscal Year 1992 results from $126 million of inflation and $108 million of new content. The cost associated with flight rate increases are effectively offset entirely by increased reimbursements from customers.

New operations content in Fiscal Year 1992 includes the requirement that NASA fully fund the range support services at Kennedy Space Center (KSC). Heretofore, this requirement had been provided to NASA by the U.S. Air Force (USAF) on a quid pro quo basis. Other new content includes the additional KSC contractor manpower to run the new orbiter processing facility and the processing control center. Additional flight operations funding is also added in Fiscal Year 1992 as a result of the Department of Defense (DoD) decision to not maintain secure operations capability for Space Shuttle flights.

The $12.5 million production increase consists of an additional $43.2 million for initiation of the Assured Shuttle Availability Program (ASA) (the total ASA is $122 million, however, $77 million of that is a continuation of the alternate turbopump development program which will be managed as an ASA project). Procurement of structural spares increased by $7.3 million, the Main Engine increased by $63 million for product improvement and follow-on test support, and an additional $8 million is required for modifying the replacement Space Shuttle Training Aircraft.

These increases are offset by a $109 million lower estimate for the Advanced Solid Rocket Motor (ASRM) program. The ASRM cost and schedule are being reevaluated in consideration of the Space Station restructuring assessment which was completed subsequent to the budget submittal. Any necessary reallocation of funds to support the Space Station schedule requirements will be accommodated through a reprioritization of Space Shuttle funding.

Question 15: By the end of FY 1991, there will have been 18 shuttle flights after Challenger. What specific steps are you taking to lower shuttle operations costs now? What about in FY 1992?

Answer 15: At the Kennedy Space Center (KSC), an extensive review of the requirements for processing Space Shuttle vehicles is currently underway and will continue into Fiscal Year 1992. The goal is to reduce processing timelines while maintaining the highest degree of safety. As processing timelines are eventually reduced, attendant manpower savings will be realized.

Also at KSC, in addition to the work processing review, development of a computer hardware, software, documentation, and work control system -- called the Shuttle Processing Data Management System II (SPDMS II) -- is underway. This computerized, automated system will largely replace the manual, paper-oriented work tracking and control system. The total system is planned to be operational by 1995. It is anticipated that cost savings will be realized from SPDMS II.

The Johnson Space Center (JSC) also has several actions underway to lower Space Shuttle operation costs. The actions include facility upgrades, flight integration, template reduction, and ascent flight design improvements.

In some instances, resulting benefits will be realized in the avoidance of cost growth rather than in an absolute budget reduction.

Question 16: Before the Challenger accident, NASA had 5,200 contract employees at the Cape for shuttle processing. In 1992, the number is scheduled to climb to 7,700. Does having a "standing army" of 7,700 contractors working on shuttle operations at the Cape really guarantee more safety in the shuttle program? Could you explain? Is this the reason the costs per launch remain above $325 million?

Answer 16: After the Challenger accident, a "bottoms-up" review of the Space Shuttle Processing Contract (SPC) was conducted. Each functional area of the SPC was analyzed and a projection made for future processing requirements. Findings from the study indicated that a significant change in approach was needed in order to enhance safety and quality in Space Shuttle processing. This resulted in a skills mix change in the SPC workforce with increased emphasis on engineering support, quality control, and the planning and control of work. Another finding revealed that over 60 percent of the manpower required to support the processing facilities is relatively fixed and insensitive to flight rate changes. Also, the addition of several new facilities, including a third Orbiter Processing Facility (OPF-3), a Processing Checkout and Control Center, and a processing and storage facility for the Advanced Solid Rocket Motor (ASRM), require additional manpower. Post-Challenger requirements also include periodic Orbiter Maintenance Down Periods (OMDP) for structural inspections and modifications. NASA believes that the increased manpower has enhanced safety.

A Space Shuttle processing enhancement team has been working for the past year to identify areas to reduce processing timelines. Some progress has been, and continues to be made. Space Shuttle Operations costs continue to be examined to find efficiencies that can reduce cost without compromising safety.

Question 17: NASA is now upgrading the turbopumps on its shuttle main engine to provide greater safety margins and to decrease the turnaround time. Yet the project has developed a cost overrun of nearly 140 percent, going from an initial cost of less than $200 million to over $480 million. What caused this large cost overrun, which includes a doubling of the contractor's bonus from $25 million to $50 million? What would be the implications for the shuttle program if this program were terminated?

Answer 17: The original Pratt and Whitney contract was signed in August 1986 for $177 million dollars with a profit (fee) potential of $21.2 million. The following initial changes in the scope of the contract added $47.3 million and $5.5 million in potential fee:

- Implement Fracture Control plan
- Provide the Hot Gas System for testing (previously planned as GFE)
- Change in Quality Control Requirements

- Added Two Pump Sets
- Material Characterization
- Process Verification Testing
- Systems Analysis
- Sideload Verification
- Vacuum Drying Capability

During Fiscal Year 1989 the Alternate Turbopump program began experiencing cost growth and slippage. A special team was appointed to review all phases of the program. As a result of this review the contractor was directed to submit a rebaseline proposal. Following Contractor submission of the new proposal in February 1990, but before the contract modification was negotiated and definitized, in April 1991, NASA budgeted $50 million to cover all potential fee that might have been earned if the entire Alternate Turbopump effort were fee-bearing. However, the rebaselining as negotiated adds $148.7 million in scope and only $3.9 million in fee, because the schedule slip is not fee-bearing. The extra fee is to be paid only on new flow analysis and material characterization requirements added to the development effort.

In November 1990, the program identified additional design changes and added a pump set to facilitate flying the new pumps as early as possible. This schedule assurance effort is expected to cost $20.4 million and to add an extra $2.1 million in fee to cover the contract. There is also $17.2 million in other approved, but undefinitized, contract changes which could add about $1.7 million in fee,and $28 million in NASA contingency fund which could be used in part to pay fee on future work added to the contract.

In summary, total definitized cost of the Alternate Turbopump effort is currently $373.0 million. Total potential fee available on the definitized work would have been lost due to failure to meet key milestones or other performance measures. In addition, $35.9 million in other work has been authorized but not definitized, and potential fee on this effort could be about $3.9 million. Total Phase C/D cost is thus estimated to be about $408.9 million, with total potential fee available estimated at about $30.4 million, making total contract price about $439.3 million. NASA's $28 million contingency, plus $13.4 million in Phase A/B study efforts generally included in the program budget, bring total funding to $480.7 million.

Termination Impacts: Delaying or canceling the Pratt & Whitney Alternate Turbopump program would save near-term funding; however, only limited savings would be realized in the long run, because the Pratt pumps, with fewer parts than the Rocketdyne pumps and very few welds, offer potential savings in operations costs. The Alternate Turbopumps are also designed to have more robust safety margins than the Rocketdyne pumps. If the Alternate Turbopump is terminated, the Space Shuttle program could forego gains in producibility, maintainability and safety margin.

24-Jun-91

SSME ALTERNATE TURBOPUMP
COST & FEE SUMMARY

	COST	FEE POTENTIAL			FEE EARNED/ EARNABLE NOW	TOTAL
		KEY EVENT	PERIODIC	TOTAL		
INITIAL CONTRACT &	177.0	10.6	16.1	26.7	22.7	247.0
ADD-ON CONTENT	47.3					
TOTAL	224.3					
REBASELINE	148.7	0.0	3.9	3.9	3.9	152.6
TOTAL DEFINITIZED THRU 4/91	373.0	10.6	20.0	30.6	26.6	399.6
SCHEDULE ASSURANCE *	20.4	0.0	2.1	2.1	2.1	22.5
OTHER AUTHORIZED WORK *	15.5	0.0	1.7	1.7	1.7	17.2
SUBTOTAL, PHASE C/D CONTRACT	408.9	10.6	23.9	34.5	30.4	439.3
CONTINGENCY **	28.0	0.0	0.0	0.0	0.0	28.0
PHASE A/B STUDIES	13.4	0.0	0.0	0.0	0.0	13.4
TOTAL	450.3	10.6	23.9	34.5	30.4	480.7

* CURRENTLY UNDEFINITIZED - FEE AMOUNT COULD CHANGE

** SOME OF THIS MONEY COULD BE USED FOR FEE DEPENDING ON DEFINITIZATION OF SCHEDULE ASSURANCE AND ABOUT $7.5 MILLION OF OTHER CONTRACT MODS.

Question 18: Considerable attention has focused on hinges, leaks, and associated mechanical problems with shuttle hardware. In addition a recent NASA Inspector General report criticized crew training and instruction, citing outdated equipment and inexperienced instructors. How has the Agency addressed these various safety issues?

Answer 18: Safety issues such as the Orbiter External Tank door hinge cracks and hydrogen leaks are immediately addressed by the Space Shuttle Program. The most common approach is to establish an independent investigation team to resolve the immediate problem, verify the Space Shuttle safe to fly and implement permanent hardware changes to rectify any problem. All known safety problems obtain immediate attention and are thoroughly understood and judged safe prior to proceeding with a Space Shuttle launch.

The Inspector General (IG) report addressed various concerns. Neither NASA nor the IG report identified any flight safety issues associated with these concerns. The basis of the report was formed using a survey with crew personnel. A strong favorable response was reported by the majority (71 percent) of the participants. However, the report focused on the negative minority (8 percent) opinion and related concerns. The concerns identified in the report had been recognized by NASA management prior to the report, along with actions in work. An equipment upgrade program for the crew simulator is expected to be completed in Fiscal Year 1993. A higher turnover rate for instructors occurred following the STS-51L accident; however, the rates have normalized and a very comprehensive training program to certify all instructors is in effect. NASA has provided detailed responses to the concerns raised in the IG report.

Question 19: What would be saved in FY 1992 if the TDRS 7 were launched from the shuttle instead of an Expendable Launch Vehicle?

Answer 19: The FY 1992 budget requests $60.4 million for launching TDRS-G, including $39 million for initial payments on an expendable launch vehicle (ELV), and $21.1 for payments on an IUS upper stage. If TDRS-G were moved to the Shuttle, the only funding required would be for the upper stage, since the Shuttle manifest would be adjusted to accommodate TDRS-G without affecting the overall Shuttle flight rate. Total runout cost of this option is estimated at roughly $150 million, excluding the cost of the Shuttle flight it should be noted that use of the Shuttle for this mission would be inconsistent with both the recommendations of the Augustine Committee and direction in NASA's FY 1991 Authorization Law.

It should also be noted that the estimate for the ELV option in the budget was at the high end of a range of possible costs. This estimate was based on use of a Titan III ELV with an IUS upper stage. Options are being assessed for using a smaller ELV (with some modifications to the TDRS-G spacecraft) that would not require an IUS. Total runout cost for this option could be below

$200 million, instead of over $350 million as was estimated for the Titan option. FY 1992 costs for this ELV option would be comparable to those for the IUS in the Shuttle option. However, it must be emphasized that this other ELV option may involve higher technical and schedule risk, and is still being analyzed by NASA.

Advanced Solid Rocket Motor (ASRM)

Question 20: The Committee has supported the ASRM program fairly consistently as an upgrade to the shuttle solid rocket booster. Why has the ASRM project development cost estimate jumped from $2.2 billion to almost $3.2 billion, an increase of 50 percent, in the past year?

Answer 20: The growth in the ASRM development runout cost estimate can be attributed in large measure to the fact that the original estimate was developed prior to contract definition. The current estimate reflects a bottoms-up estimate by the contractor based on the program as currently defined, which includes a change in the first launch date from December 1995 to August 1996. The current estimate includes some significant content changes from the previous baseline (the Fiscal Year 1991 Congressional Budget). These include such items as the environmental insurance, Ammonium Perchlorate surcharge, and the impacts on other elements of the Space Shuttle Program. Also included are spares for plant equipment and the test operations activities at the Stennis Space Center (SSC) which were inadvertently omitted from the Fiscal Year 1991 budget. In addition, the Fiscal Year 1991 budget excluded operations facilities at the Kennedy Space Center (KSC). These facilities are now included as are the additional efforts associated with the SSC test stand deflector, wetlands, and engineering building. Thermal treatment of unusable propellant and environmental considerations have also added additional content and cost to the Yellow Creek facilities.

Question 21: Is there a reasonable means to assemble the station with a pre-integrated truss that does not use ASRM? If so, please explain.

Answer 21: The ASRM serves to reduce the number of assembly flights needed for the Space Station. If it is not available for launch of the U.S. Laboratory in 1997, NASA will plan an additional flight immediately following assembly of the laboratory for lab outfitting. The Space Station can be assembled and supported with the existing Redesigned Solid Rocket Motors (RSRMs). The impact would be that additional flights will be required, the assembly sequence modified and additional integration activities will be performed on-orbit.

Question 22: Given the very large growth in the ASRM program cost, would NASA insist on building ASRM if the space station program were terminated? If so, would the project need to follow the current development schedule that is largely driven by the station's assembly sequence?

Answer 22: The ASRM is closely linked with the Space Station program. The Space Station program is a fundamental cornerstone in NASA's plan for the future. Should it be terminated, the agency would have to review all of its current activities, including the ASRM, to determine if they would still be appropriate and, if so, whether the current schedule would be applicable.

The ASRM does provide long-term benefits to the space program. The ASRM is designed to substantially increase flight safety by improving reliability and producibility, as well as increasing performance. The long-term benefits include:

1. Improved systems reliability through enhanced quality and reproducibility, which will be accomplished by utilizing a modernized facility with the latest automated techniques to improve process and quality control. Changes in design, configuration and materials improve safety margins. Significant reductions are made in critical failure modes due to the reduction in the number of joints, improvements in joint configuration, and tailoring of the thrust profile at maximum dynamic pressure during ascent.

2. A 12,000-pound increase in payload to orbit provides necessary margins and flexibility for manifesting as well as capability to launch payloads that are heavier and to higher altitudes.

Mission to Planet Earth

Question 23: Can you explain what the recently named EOS Advisory Committee is supposed to accomplish, and when its results will be submitted to NASA and the Congress?

Answer 23: As outlined in the Charter for the Earth Observing System (EOS) Engineering Review Advisory Committee:

> "The purpose of the review will be to assess alternatives for the implementation of EOS, including size of platforms, instrument configuration, and launch requirement and sequencing. The objectives of the review are to ensure that the recommended program: (1) meets established scientific objectives; (2) places highest priority on achieving data collection needs specifically focused on climate change and global warming issues; (3) minimizes annual funding requirements; (4) minimizes technical risk; and (5) has sufficient resiliency to be adaptable to changing requirements.
>
> For the EOS-A series of platforms, which is an ongoing activity, the purpose of the review is to assess whether any alternatives are significantly superior to the current program, with respect to the objectives stated above. For the EOS-B series of platforms, which is currently being reconfigured by NASA, the purpose of the review is to assist

NASA in adopting a new design which best meets the stated objectives."

The first meeting of the EOS Engineering Review Advisory Committee is scheduled for May 30-31, with a second meeting planned for July 18-26. The final report of the Committee is to be submitted to the NASA Administrator no later than September 30, 1991.

Question 24: Given the very real budget constraints the Committee faces, both in 1992 and the years beyond, isn't it advisable to redesign the EOS project to reduce its $18 billion cost over the next nine years, but hold its current launch schedule? How would you rescope the project if we told you to hold the schedule for the launch of the first platform (fourth quarter of 1998), but reduce the program's cost by $6 billion?

Answer 24: A $6 billion reduction in funding for the EOS program between now and 2000 would require NASA to significantly delay and rephase portions of the program. Assuming that the program would be fully funded at the current projected level in FY 1992-94, and the suggested reduction is made after 1994, an EOS program could be designed with the following characteristics:

o Development, delivery, and launch of the first EOS-A series spacecraft on schedule in the fourth quarter of 1998

o On-line capability for the prototype EOSDIS (Version 0) system on schedule by 1994

o Delay of 2-3 years of the fully functional EOSDIS archival and distribution system (Version 1) as a stage in evolution from prototype to operational system
  - Deferral of pre-EOS science support (archival and distribution) capability and functionality

o On-line capability for operational EOSDIS (Version 2) system to support launch of the first EOS-A spacecraft
  - Increased risk in establishing operational system capability (archival and distribution, real time data product generation, spacecraft operations) for EOS-A spacecraft data because of deferred testing and experience associated with Version 1

o Deferral of subsequent EOS-A series spacecraft and instrument development until later in the 1990's
  - Increased total program cost due to inefficiencies in delaying purchase of subsequent instrument and spacecraft copies
  - Increased risk of gap in data continuity due to possible delays in launch of subsequent EOS-A spacecraft

o Rephasing and fundamental redefinition of EOS-B series instruments and spacecraft, and associated data system capability. The EOS-B series is intended to provide measurements of tropospheric and stratospheric chemistry, ice sheet volume, direct atmospheric winds, etc., all of which are critical measurement requirements associated with global warming

The current NASA budget for the Earth Observing System (EOS) program through the year 2000 reflects our best estimate of the costs of providing the required measurements and associated data system capabilities which are needed to support the science objectives of the U.S. Global Change Research Program (USGCRP), including the launch of the first EOS-A spacecraft in 1998. It is important to note that a reduction at this level would not support the timely delivery of the complete suite of global measurements of the Earth system needed to support the USGCRP and would significantly limit and delay the USGCRP's ability to provide critical information on global change uncertainties.

Question 25: What is the Agency strategy for reducing the EOS program should it be necessary for budgetary reasons? How would the various elements be evaluated and prioritized? Has NASA or the FCCSET Committee on Earth and Environmental Sciences done a sensor-by-sensor justification of the scientific impact on understanding global processes of the various sensors and potential data products? What are the results?

Answer 25: NASA believes that the current EOS program has been very carefully planned to support the science objectives of the USGCRP at the lowest possible cost. Significant budget reductions would either result in unacceptable launch delays or cancellation of the current program and a redesign of our program of observations. Such reductions would require a fundamental change in the science objectives of the USGCRP, which would be significantly impacted if the simultaneous observations were not made by the EOS mission. The USGCRP goal of observing and predicting the future state of the Earth's climate would be difficult to support under a significantly descoped EOS program.

The EOS Payload Panel, composed of the 29 EOS Interdisciplinary Investigators, evaluated the science contributions of each of the instruments proposed for the EOS-A series and made recommendations concerning the best way to combine those instruments to achieve USGCRP science objectives. However, neither NASA nor FCCSET has conducted a detailed sensor by sensor analysis of what science would be lost if specific instruments were deleted. It is important to note that the synergism of these instruments makes the value of flying the sensors together far greater than the value of each of their individual observations.

Question 26: The House Science Committee has recommended a $75 million cut in the EOS FY 1992 budget in their version of the NASA authorization. What would be the effect of this cut?

Answer 26: Almost all of the President's FY 1992 budget request for EOS is for the science program and the development of the associated spacecraft, instruments, and data system needed for the first spacecraft in the EOS-A series. NASA recently selected the instruments for this spacecraft, which will provide a concentrated and coordinated study of the causes and effects of global warming. NASA is studying alternatives for most effectively accommodating the candidate instruments in the EOS-B series, and released a Request for Information (RFI) to industry seeking suggestions on how this might be accomplished. Only a small fraction of FY 1992 funding supports EOS-B development.

The proposed budget reduction amounts to almost a quarter of the funds NASA needs for this critical development effort in the coming year. The reduction amounts to more than half the increase in requested funding compared to FY 1991 level, and we believe that a reduction of this magnitude would have profound consequences on program development, especially since early year funding is critical to the long-term success of the program. Such a reduction would result in approximately a one year slip in most program milestones, i.e. the launch of the first EOS-A series spacecraft would occur no earlier than late 1999 and could slip into the next decade. In addition, this reduction could result in a delay in the award of the contract for the EOS Data and Information System - EOSDIS - and potentially could result in a delay in the high priority work being conducted in support of the prototype EOSDIS, which is important for near-term processing of data from past and near- term missions.

Finally, the combined effect of the cuts proposed by the House over the next three years would make it impossible to develop a timely global observing system capable of meeting the scientific measurement requirements of the U.S. Global Change Research Program and to address the comprehensive set of uncertainties defined by the Intergovernmental Panel on Climate Change (IPCC). If realized, such reductions would likely require cancellation of the EOS program as it is currently configured.

Question 27: Although NASA has proposed several space-based components for global change research in the Mission to Planet Earth, many require extensive ground-based validation efforts. How has NASA insured that these critical ground-based programs, many of which involve other agencies or other countries, are adequately scoped and will be in place when required?

Answer 27: Mission to Planet Earth planning has always reflected the understanding that studies of global change will require highly accurate long-term data sets acquired by well-calibrated spaceborne sensors and validated through coordinated airborne and surface-based measurement campaigns. While NASA is primarily responsible for the space-based observations in support of the U.S. Global Change Research Program (USGCRP), it recognizes the importance of ground-based measurements. Within the EOS program, each EOS instrument investigation is required to submit an instrument calibration plan, instrument calibration management plan, and data product validation plan.

Outside of EOS, there will be a variety of other NASA observation and research efforts which will be used to validate and calibrate EOS measurements. For example, flights of the

Atmospheric Trace Molecules Observed by Spectroscopy (ATMOS) and Active Cavity Radiometer Irradiance Monitor (ACRIM) instruments as part of the Atmospheric Laboratory for Applications and Science (ATLAS) payload on the Shuttle will be used to provide important correlative measurements to those made by both the Upper Atmosphere Research Satellite (UARS), scheduled for launch in September 1991, and later by EOS. Aircraft campaigns, similar to those currently underway as part of the Atmospheric Boundary Layer Experiment (ABLE) and International Satellite Land Surface Climatology Project (ISLSCP), will also provide coordinated measurements which will both complement and validate EOS measurements. Measurements by other research spacecraft, such as the Tropical Rainfall Measuring Mission (TRMM), and instruments, such as the Total Ozone Mapping Spectrometer (TOMS), will provide data which can be used to calibrate EOS observations and provide useful data intercomparison. Finally, ongoing efforts in ground research and modeling and data analysis, including the development of multi-dimensional models of stratospheric chemistry and global climate, will support the use and correction of EOS data, just as they will provide such information for near term flight missions such as UARS and the Ocean Topography Experiment (TOPEX/POSEIDON).

Outside of NASA, we are working very closely with the other agencies of the Committee on Earth and Environmental Sciences (CEES) to provide a coordinated observing program and a comprehensive program of modeling and data analysis. In addition, we are coordinating our efforts with the international community, through the International Geosphere Biosphere Program (IGBP), the World Climate Research Program (WCRP), and the Committee on Earth Observation Satellites (CEOS).

Question 28: Can you explain why the release of the RFP for the EOS data system (EOSDIS) has been delayed by 6 months? Does this slip create any potential future problem in either cost or schedule?

Answer 28: There are several reasons why NASA has delayed the release of the Request for Proposals (RFP) for the EOS Data and Information System (EOSDIS) Core System. There were a large number of submissions in response to the Requests for Information (RFI) issued in the second half of 1990. Responding to these comments from industry, and incorporating the often innovative ideas proposed, has taken longer than expected. In addition, since the release of the RFI, NASA decided to include archiving and distribution of data from the Tropical Rainfall Measuring Mission (TRMM) and the Japanese Advanced Earth Observing Satellite (ADEOS) as a requirement for the EOSDIS Core System. Integrating these requirements into the overall design has taken additional time.

The delay in the release of the RFP results in a final contract being signed in late 1992. However, we plan to sign a letter contract in late summer 1992, which would enable planning and design work to begin. The delay will not affect the work in progress on the development of the EOSDIS prototype system

(Version 0), which is expected to be operational in 1994. Moreover, the delay will not result in any cost impact to the EOSDIS contract.

Question 29: Does NASA envision EOSDIS to be the "national data facility" for the entire earth sciences effort? If so, how does NASA plan to incorporate non-NASA satellite data? How will NASA cooperate with NOAA, DoD and other agencies to produce a compatible and comprehensive system for data retrieval, and product preparation?

Answer 29: Our knowledge of the Earth will increase substantially over the next several years with the flight of a variety of U.S. and foreign research and operational missions, along with continued in-situ and ground-based observations and research. These missions include flights of NASA spacecraft, e.g. the Upper Atmosphere Research Satellite, Shuttle-borne Spacelabs and instruments, National Oceanic and Atmospheric Administration (NOAA) operational satellites, Department of Defense (DoD) research satellites, joint international missions (e.g. the U.S./French Ocean Topography Experiment, TOPEX/POSEIDON), and foreign missions (such as the European Remote Sensing Satellite, or ERS-1).

Our current design plan for the EOSDIS is intended to make optimum use of the data from these upcoming missions. NASA is designing the Version 0 (prototype) EOSDIS to allow researchers maximum access to the data from these missions as well as important data from past missions. NASA has completed an agreement with NOAA and other agencies on efforts to work with Pathfinder data sets to ensure that existing data sets are identified and converted to a readily accessible form, and that new long term derived products needed for global change research are produced and made available through EOSDIS. Science panels (atmosphere, oceans and land) have been formed to guide the implementation of a research quality Advanced Very High Resolution Radiometer (AVHRR) pathfinder data set; data processing began in early 1991. Other Pathfinder Data Sets include the TIROS-N Operational Vertical Sounder (TOVS) and the Special Sensor Microwave/Imager (SSM/I) in the Defense Meteorological Satellite Program (DMSP).

The Version 1 (operational) EOSDIS will operate as the Earth science and applications discipline data system for NASA. Requirements for the system are designed to support open access to all existing Earth science data sets for which NASA has responsibility, as well as those other key data sets which have been included in NASA data holdings, to support their adequate availability for global change research use. This includes the provision by EOSDIS, for scientific research purposes, of the data being generated by on-going and planned NASA flight missions, such as those described above. NASA is also working through the Interagency Working Group on Data Management for Global Change on uniform Federal data policies and on coordination of data resources. We are negotiating with other agencies, e.g. NOAA, DoD, and the U.S. Geological Survey (USGS), to ensure that their data holdings can be accessed through the EOSDIS. The EROS Data Center, which contains significant archives of land observations data and is operated by USGS, has been selected as one of the Distributed Active Archive Centers (DAACs) for EOSDIS, and it is likely that one or more existing NOAA data centers will be Affiliated Data Centers for EOSDIS.

NASA is negotiating with other nations to ensure the broadest possible data availability to support global change research. For example, we have concluded agreements which will enable the Alaska Synthetic Aperture Radar (SAR) Facility, which will also serve as an EOSDIS Distributed Active Archive Center, to archive and process important SAR data from near-term foreign missions, e.g. the ERS-1 scheduled for launch this year. NASA is also working through the Earth Observations International Coordination Working Group (EO-ICWG) toward formal agreements that would ensure that data from the EOS partners spacecraft (European Space Agency, Japan, Canada, U.S.) would be available through a common data policy to all users. Whether or not the data physically resides in an EOSDIS facility, EOSDIS users will be able to access directory and inventory information about data from other platforms and to place orders and receive data through EOSDIS regardless of who provided the instrument and on which spacecraft it flies.

Earth Probes

Question 30: How much of the Administration's multi-agency initiative in High Performance Computing and Communication will be directed toward the EOS Data Information System (EOSDIS)? Towards problems of global change?

Answer 30: The High Performance Computing and Communication Initiative (HPCCI) will improve our computing and communications capabilities in support of the EOS program, including the transmission and processing of increasingly larger quantities of data. In addition, while the current design for EOSDIS does not require the development of significant new technology for mission success, EOSDIS is being designed to readily incorporate advances in computing technology. One area where such advances could be particularly important would be in enhancing our ability to model complex global systems.

Question 31: NASA has proposed to launch a series of Earth Probes as precursors to the EOS mission. Relate how each of the earth probe missions focuses on a high priority issue as defined in the U.S. Global Change Research Program. How will these missions better prepare NASA and the scientific community for the EOS mission? How will they provide better understanding for policy decisions about global warming?

Answer 31: The Earth Probes program was designed to provide observations of specific parameters which are critical to our understanding of climate change. As such, the missions are designed to contribute directly to the science objectives of the U.S. Global Change Research Program (USGCRP). Each mission will provide a different type of contribution:

- Total Ozone Mapping Spectrometer (TOMS). The planned series of TOMS flights will continue our long term measurements of global ozone concentrations, including measurements over North America and the Antarctic. Such measurements are a critical component of the Scientific Assessment of Stratospheric Ozone conducted by the Intergovernmental Panel on Climate Change (IPCC) and the deliberations associated with the Montreal Protocol. TOMS flights are currently planned on a Soviet Meteor-3 spacecraft in 1991, a small U.S. spacecraft in 1993, and the Japanese Advanced Earth Observing Satellite (ADEOS) in 1995.

- NASA Scatterometer (NSCAT). NSCAT will provide important observations of ocean surface wind velocity and provide data on air-sea interactions. NSCAT measurements will allow, for the first time, calculation of large-scale fluxes of momentum, heat, and moisture between the atmosphere and ocean. Such measurements will contribute significantly to our understanding of ocean circulation, global heat transport, and global warming, all of which are essential elements of the USGCRP. NSCAT is scheduled for flight on the Japanese ADEOS spacecraft in 1995. A version of NSCAT, the Stick Scatterometer (STIKSCAT), will continue this important data set when it flies on the first EOS-A spacecraft in 1998.

- Tropical Rainfall Measuring Mission (TRMM). A joint mission between the U.S. and Japan, TRMM will make the first measurements of tropical rainfall over large portions of the globe. Such rainfall is a major source of energy transfer between the ocean and atmosphere in the tropics; TRMM will expand our limited understanding of this process, and of its potential role in global warming. TRMM, which is scheduled for flight in 1997, will also carry the Clouds and the Earth's Radiant Energy System (CERES) instrument, which measures the level of incoming and outgoing radiation (Earth radiation budget), and the Lightning Imaging Sensor (LIS) instrument, which offers a better understanding of the dynamics of storms; these instruments have also been selected for flight on the first EOS-A series spacecraft. Flight of these instruments on both TRMM and EOS will allow a better understanding of diurnal (time of day) variations of such phenomena.

Question 32: The Tropical Rainfall Measuring Mission (TRMM) will give us valuable data on rainfall. From a technical standpoint, how much earlier than 1997 could this mission be launched, and how much would we need to augment the 1992 budget request of $14 million to do this? Is there a plan to include a Stratospheric Aerosol and Gas Experiment (SAGE) on TRMM?

Answer 32: NASA believes the current schedule for the TRMM mission represents a realistic timetable for developing the spacecraft. From a technical perspective, the development and delivery for the U.S. instruments essentially dictate the current TRMM schedule.

NASA examined the possibility of flying the Stratospheric

Aerosol and Gas Experiment (SAGE III) instrument as part of the TRMM payload. That review showed that the SAGE III instrument would have required substantial near-term resources to meet the TRMM flight schedule; such resources are not available within the NASA budget in FY 1991 and FY 1992. Observations by the current SAGE II instrument on the Earth Radiation Budget Satellite (ERBS) continue, with no significant problems.

Question 33: The Committee added $3 million to the requested $73 million for the TOPEX/POSEIDON mission in FY 1991 to keep it on schedule. Will the project stay within budget in 1991? Are there any threats to the mission not being launched in the second quarter of 1992?

Answer 33: NASA reprogrammed $4.4 million of additional FY 1991 resources to support TOPEX/POSEIDON development and to maintain the schedule for the spacecraft; we expect to stay within this adjusted budget in FY 1991. We are currently negotiating the launch date with the French, but believe it will be sometime in June or July 1992.

Question 34: A number of scientists have argued that we should augment the Earth Probes series with two small climate satellites that could answer some key questions related to climate change that would otherwise not be answered until well after the launch of the EOS-A or EOS-B platforms. Scientifically, will these "CLIMSAT" satellites help with climate questions which need further data? How much would be needed in 1992 if we chose to begin them?

Answer 34: The proposal for the Climate Satellite, or CLIMSAT, involves the flight of a payload of three instruments on spacecraft in both polar and 55 degree inclination orbits. The three proposed instruments are: the Clouds and Earth's Radiant Energy Systems (CERES); Stratospheric Aerosol and Gas Experiment (SAGE III); and the Earth Observing Scanning Polarimeter (EOSP).

NASA has examined the possibility of flying these instruments as part of the joint U.S./Japan Tropical Rainfall Measuring Mission (TRMM) in 1997 to provide the earliest possible flight in a low inclination (35 degrees for TRMM). The results of that review led to the following conclusions:

o CERES is now being planned as part of the TRMM payload, and has also been selected for flight on the first EOS-A series spacecraft.

o The SAGE III instrument would have required substantial near-term resources to meet the TRMM flight schedule; such resources are not available within the NASA budget in FY 1991 or FY 1992. As noted above, observations by the current SAGE II instrument continue with no significant problems.

o EOSP has been selected for flight on the first EOS-A series spacecraft. Its development schedule was deemed too challenging to be able to support a 1997 launch on TRMM.

Fortunately, polarization measurements similar to those planned for EOSP will be provided in a polar orbit on the French Polarization and Directionality of the Earth's Reflectance (POLDER) instrument planned for flight on the Japanese ADEOS spacecraft in 1995.

Assuming the inclusion of these three instruments, it seems unlikely that "CLIMSATS" of the type proposed could be ready for flight in advance of the TRMM Earth Probes mission in 1997. Therefore, their value in providing earlier results on critical questions of global change would be substantially diminished. NASA believes that the planned program of observations by EOS, Earth Probes, and foreign cooperative missions provides the most prudent means of acquiring the desired observations as rapidly as possible.

New Launch Vehicle

Question 35: We anticipated receipt of a plan for a new launch vehicle by March 1 from the National Space Council. They indicate that the plan is still under study. Why the delay on the plan -- is it due to technical difficulties in determining the use for the vehicle, or a disagreement between DoD and NASA on what kind of launch vehicle should be built?

Answer 35: The presentation to the National Space Council was delayed until April 16, 1991, to accommodate the calendars of the Vice President and the Space Council; NASA and the Department of Defense (DoD) were ready to present the plan on March 1, 1991. NASA and DoD are in agreement on the important aspects of a joint NLS program: program content, vehicle configuration, technical approach, management structure and funding profile to meet a Fiscal Year 1999 first launch date. Details such as the scope of necessary trade studies, accommodation of each agency's procurement and reporting requirements and funding procedures are being defined.

Question 36: Will the Administration's plan call for the development of a Shuttle-derived vehicle like Shuttle-C, or something else?

Answer 36: The Administration's plan does not include Shuttle-C. The National Launch System (NLS) is, however, an evolutionary approach, building on existing capability to reduce the up-front development costs. It utilizes the Space Shuttle External Tank (specifically the tooling and manufacturing capability at the Michoud Manufacturing Facility) as the basis of a core vehicle, the Vehicle Assembly Building (VAB) and Launch Complex 39 pads for initial launches, the Space Shuttle solid rockets and the Titan IV shrouds. The main engine and avionics are to be new developments to ensure attainment of the operability and lower per-flight cost objectives. Additional launch site facilities are included to further ensure attainment of the operability objectives.

Question 37: Are there any serious missions on the NASA drawing board to start late in this century that could benefit from a heavy-lift vehicle? If so, what are they? Is a heavy-lift vehicle essential for them?

Answer 37: There are no currently approved NASA payloads which cannot be delivered with existing launch vehicles. This is as should be expected; the agency does not commit to missions requiring capability in excess of that available without a concurrent commitment to the necessary launch capability.

As the National Launch System (NLS) vehicles mature and specific flight availability dates are identified, a detailed payload transition plan will be developed. Initially, we believe a third of the currently planned Space Shuttle flights and all the Titan-class Expendable Launch Vehicle flights would be transitioned to the NLS. Because the NLS vehicle will provide payload mechanical accommodations identical to those provided by the Space Shuttle, Space Station hardware designed for Space Shuttle flights would be candidates for transition to the NLS vehicle. Other candidates are science missions which do not require man-tended operations.

In the 1990s, NASA will be developing new science missions, both to Earth and from Earth. Since the payload capability of the NLS vehicles can be significantly greater than provided by existing launch vehicles, and because we anticipate better launch-on-time performance, significant new mission opportunities will be enabled. Science mission planners will be quick to exploit the additional capability to significantly increase the information return.

The Space Exploration Initiative -- return to the Moon and manned exploration of Mars -- requires a new heavy-lift launch capability. The NLS is being designed to later accommodate growth projected as required for these exploration missions.

Finally, development of the NLS accommodates the recommendations of the Advisory Committee on the Future of the U.S. Space Program (Augustine Committee) on increasing our launch vehicle capability. It provides a robust addition to our space transportation system; one we believe will be less costly on a per-flight basis than any of our existing launch vehicles. It will lessen our dependence on the Space Shuttle for missions not requiring manned presence. It will be available in time to support all but the initial deployment of the Space Station. And the NLS will be man-rateable so that it could provide the lift capability for a small manned vehicle that is being studied as an eventual alternative to the Space Shuttle for manned space transportation.

Question 38: The agency is requesting $175 million for this initiative in FY 1992. Suppose our allocation cannot accommodate that amount. How much would be necessary to begin the needed studies on it, and continue any existing technology work at a minimal level?

Answer 38: The minimum funding which will maintain the program with a first flight focus is $200 million combined NASA and Department of Defense (DoD) funding. At this level the engine development program will be initiated, critical engine technologies will be matured, vehicle technologies scheduled for use in the initial vehicle will be demonstrated and a minimal level of vehicle studies will be maintained.

Below this level the program will remain a technology development program with little vehicle focus. The engine development program cannot be initiated, and the engine test facilities will not be completed.

Hubble

Question 39: NASA has identified the repair of the Hubble Space Telescope (HST) as a top priority. This is reasonable since the instrument is in orbit and has a limited lifetime. How and when does the Agency propose to repair the instrument? To what degree have the user scientists participated in the decision? Is there full agreement on this strategy?

Answer 39: The HST Program has developed a comprehensive strategy to recover the capabilities affected by HST's on-orbit anomalies. Our objective is to achieve this recovery as soon as possible, and with minimum cost and risk to the program. Our proposed strategy has been thoroughly reviewed. We anticipate that a formal baseline for the 1993 servicing mission will be finalized within the next 3 months. The baseline hardware complement for the 1993 mission may contain the following:

1. NASA is currently considering a two-pronged strategy for overcoming the effects of HST's spherical aberration. First, corrective optics will be added to the second Wide Field/Planetary Camera (WF/PC II), which is under development. This revised instrument will replace WF/PC I, as originally planned, during the first servicing mission.

Second, NASA is performing detailed studies on a device called the Corrective Optics Space Telescope Axial Replacement (COSTAR) to optically correct the remaining instruments (except the High Speed Photometer (HSP) which would have to be removed). A formal decision on COSTAR is expected this summer.

2. NASA will use a combination of revised flight software, and hardware changes to the second set of solar arrays, to alleviate the effects of the solar-array induced "jitter." The Solar Array Gain Augmentation (SAGA) software was uplinked to the spacecraft during April 1991, and has already reduced the jitter by approximately 60 percent while operating in "fine lock." The second set of solar arrays will be installed during the first servicing mission, significantly reducing or eliminating the remaining effects of the jitter.

3. Other on-orbit hardware items are under review for possible replacement during the first servicing mission. NASA will

evaluate other hardware problems that might develop prior to the first servicing mission and make a final determination on which additional hardware items will be replaced during the first servicing mission.

The science community is deeply involved in the planning for the 1993 servicing mission through the Space Telescope Science Institute (STScI), instrument investigators, and other committees and working groups. NASA's proposed strategy has been reviewed and endorsed by numerous science panels over the last few months including the HST Users Committee, the HST Science Working Group, the Association of Universities for Research in Astronomy (AURA) Executive Committee, the Space Telescope Institute Council, and the Space Telescope Science Instrument Strategy Review (chaired by Dr. Weedman). There is full agreement on the strategy proposed.

Question 40: Could you provide an update on the first year of the HST describing its actual performance versus what was expected? How have you changed quality assurance of science projects in light of the Hubble experience?

Answer 40: The scientific return of HST during this first year has been spectacular. The pre-launch observing schedules for HST's scientific instruments have been reallocated in order to increase the emphasis on spectroscopy. This change will permit the scientists using HST to take advantage of its current strengths. The imaging instruments (Wide Field/Planetary Camera and Faint Object Camera) will be allocated additional viewing time after the first servicing mission provides them with "corrected" optics.

The purpose of HST's early engineering observations was to check out the Observatory and determine what science could be accomplished with HST in its current configuration. In the last few months, more and more observing time has been devoted to routine science observations. HST's results have been encouraging and, at times, startling. HST has discovered intergalactic clouds that theories said should have dissipated billions of years ago; provided unprecedented detail of Saturn's Great White Spot; observed absorption lines for chemical elements that have never before been identified, opening intriguing questions in atomic science; peered deeply into the core of distant celestial objects that are challenging preconceived theories; and, in conjunction with data from other astronomical observatories, taken the first step toward determining the distance scale of the universe using an image of Supernova 1987A. The list of discoveries and unexpected surprises continues to grow, only a fraction have been listed here.

On the engineering side, the operations plan established after HST's launch called for the following:

1. Characterize and optimize HST's current scientific capabilities by understanding and validating the condition of the on-board optics, providing pointing accuracy, repeatability and

stability, and completing HST's on-orbit commissioning.

The goal of the HST program was to achieve a 33 percent observing efficiency for the scientific instruments. During the last few months, the Observatory has reached this goal. This constitutes the clearest indication that the program has compensated for the initial problems related to spherical aberration and the solar array-induced jitter and that NASA has developed operational solutions to alleviate most of the effects of these initial problems.

The HST project has determined the actual prescription of the on-board optics, which is necessary for the design of corrective optics for the follow-on instruments. In addition, the project has successfully analyzed and characterized the on-orbit performance of the solar arrays. The European Space Agency (ESA) will now be able to modify the second set of solar arrays in order to reduce their adverse effect on the Observatory.

2. Maintain the current flight systems and develop replacement flight hardware to operate the Observatory efficiently over the long term. In addition, develop parallel and moving target capability.

In the year since the discovery of spherical aberration and solar array-induced jitter, the HST Program has demonstrated a high degree of flexibility in responding to these anomalies and in developing a comprehensive strategy for recovery. This proposed strategy is now considered the baseline program for the first servicing mission and is detailed in our response to Question 39.

In response to the second part of the question, the recent HST experience has reinforced NASA's commitment to quality assurance in all science programs. We believe that the most effective method for managing our space science missions is a commitment, at all levels of the organization, to strong program management and oversight. We see a sound Quality Assurance program as a key component of our management approach and are continuing to work with the Office of Safety and Mission Quality to incorporate the lessons learned from all our space science missions, including HST, into our on-going program management.

Question 41: Mission operations costs for HST call for an increase of $23 million in FY 1992. This comes after the Committee provided an additional $30 million in FY 1991. Why are the additional funds needed?

Answer 41: NASA's FY 1992 funding requirements for HST operations and data analysis are based on a life-cycle planning process conducted prior to the discovery of spherical aberration. The HST servicing program has been designed to accommodate unanticipated failures and problems through the installation of spare hardware and the development of new instruments. The requested FY 1992 funding levels are required to support NASA's efforts to provide for an efficient and productive 15-year mission. The increase in funding requirements between FY 1991 and FY 1992 is driven by the level of work required to support the development of instruments, software and hardware, mission planning associated with on-orbit servicing, and inflation. The first servicing mission will be the most challenging space repair mission ever conducted, and the requested FY 1992 funding level is required to properly plan and prepare for this mission.

Mars Observer

Question 42: Why does the Mars Observer mission, scheduled for launch in fall 1992 need additional funds in 1991 above the budget request of about $66 million? Once the next reprogramming is sent to the Committee, its cost will have gone up for this year by almost one third.

Answer 42: Development efforts for several of the Mars Observer spacecraft instruments and systems are behind schedule. Additional funds are required to compensate for schedule compression and complete payload instrument development, test, and calibration, as well as to accommodate late instrument deliveries to General Electric (GE) for integration with the spacecraft.

A series of technical problems have been encountered in the past year: late delivery of electronic parts and detectors, receipt of parts which did not meet specifications, and instrument testing problems. As a result, the risk associated with the completion of several instruments has increased. NASA is closely monitoring GE's schedule for completing spacecraft hardware development, integration and testing as well as maintaining close scrutiny over instrument development at other contractors and universities. As a planetary mission, the schedule of launch opportunities for Mars Observer is constrained by celestial mechanics. Funding for the Mars Observer schedule recovery effort is critical for meeting our September 1992 launch window.

Question 43: There is a concern about reports that the Galileo mission to Jupiter is potentially in trouble because of a faulty antenna that prevents clear communication with JPL. How serious is the problem? What solutions are you developing to fix the problem?

The failure to fully deploy the Galileo high gain antenna (HGA) does not prohibit clear communications between the spacecraft and the JPL Deep Space Network (DSN). In the antenna's present configuration, it does substantially reduce the rate at which data is returned to the DSN.

While NASA and JPL program and project managers remain confidently optimistic that a workable solution will be found, many of the planned science objectives for the Galileo mission can be met with the HGA in its current condition, including the flyby of the asteroid Gaspra this fall and the probe mission into Jupiter's atmosphere in 1995.

Assuming a worst-case scenario, the reduction in data rate would adversely affect the objectives associated with the 10-orbit tour of the Jovian satellites. The effect is an inability to return most of the orbiter's scientific data in an appropriate time frame.

JPL is presently taking all appropriate measures to fully understand and characterize the present antenna configuration. Several failure scenarios are under investigation, and detailed analysis/modelling efforts are continuing. The project's preliminary conclusion is that the antenna is partially and asymmetrically deployed and that there is a good possibility that full deployment can be achieved. However, until the analytical activities provide better definition of the circumstances associated with the partial deployment, the antenna activating mechanism will not be re-energized. Spacecraft functionality is not affected by the reduced efficiency of the HGA.

Question 44: If the Agency is forced to launch another satellite to facilitate data transmission between the Galileo spacecraft and the Earth, what will be the cost and source of funds.

Answer 44: NASA is not considering the launch of a satellite which would facilitate transmission of Galileo's scientific data during the prime Jovian mission period. Therefore, no estimate is available.

Commercial Development

Question 45: The Centers for the Commercial Development of Space (CCDS) were begun in 1985 to encourage melding of government, industry, and academia to develop space related technologies with potential for commercial application. While proposed to achieve self-sufficiency in 5 to 7 years, several institutions have made little progress toward that goal; some conceding they may never become independent. What plan and timetable does the Agency have for phasing out unsuccessful centers?

Answer 45: NASA is satisfied with the CCDS's progress, because self-sufficiency is not the ultimate objective but a fallout of the primary goal of developing products, markets, and infrastructure for U.S. industry. The CCDS's are aggressively pursuing more cost effective approaches to space flight and research, thus having the added potential to benefit the entire civil space program.

Each CCDS is working on projects with a variety of industrial affiliates, and receives funding based on the specific projects it pursues. The complexity of space research itself limits industry involvement, and cash support and royalty revenue available in a short time frame of 5-7 years is not adequate. NASA has taken corrective action on CCDS's that were not performing acceptably. These Centers have been restructured and are now operating satisfactorily.

The CCDS's are providing an important technology linkage between the government, academia, and industry which assures the direct transfusion of technology between NASA and the private sector, and vice versa. The final benefits are downstream and should be based upon national priorities that deliver space-driven commercial projects and markets. The CCDS role is completed when identified commercial technology data base development projects have been accomplished.

Data Management

Question 46: Last year, a GAO report (NASA Is Not Properly Safeguarding Valuable Data from Past Missions) was critical of the Agency handling of data. Can you describe point-by-point the steps the Agency has taken to implement the GAO recommendations?

Answer 46: At the time of the GAO report NASA was in the process of implementing most of the recommendations made. The following is a status of the recommendations made:

GAO Recommendation: Conduct a thorough inventory of all NASA's space science data stored at NASA centers and contractors, universities, research institutions, and other Federal agencies.

NASA Response: Tape inventories for NASA data centers are currently maintained. We have completed an extensive census effort with our principal investigator community, to identify data sets held from previous missions to be included in archives and made available to the general research community. Our emphasis went beyond tape storage and focused on the overall management of the data (regardless of the specific storage medium) and improving its accessibility and utility to the research community.

In addition, the NASA Master Directory System, is now fully operational, and populated with approximately 90% of the most useful NASA archived data. It provides on-line information to the research community about existing data sets, including archive locations. All new projects are tagged and updated for inclusion in the Master Directory. This is also part of an interconnected directory system for access to data information both with other agencies, such as NOAA, and internationally.

GAO Recommendation: Assess, in cooperation with the scientific community, the inventoried data for its scientific value and integrity of its storage media.

NASA Response: We have completed an extensive census with the science community to identify and assess the value of data products for inclusion in archives. There are also active, on-going efforts with steering groups for science disciplines (astrophysics, space physics and planetary research) that oversee and evaluate the quality and value of data sets within their discipline community.

GAO Recommendation: Copy valuable data from deteriorating tapes to archival quality magnetic tapes or other storage media suitable for long-term retention of digital data, and release unneeded tapes for reuse or disposal.

NASA Response: There is an active restoration program to migrate "oldest" data media to newer media. To date, approximately 18,000 tapes have been compacted and restored to 1,750 higher density tapes at the NSSDC. In addition, 135,000 tapes formerly stored at the Federal Records Center have been returned to JPL for restoration. The inventory, cataloging and evaluation processes have been completed and restoration will proceed as a priority as determined by the science community. There are also active ongoing efforts to convert data bases to other media such as Compact Disk Read Only Memory (CD-ROM) and optical disks.

Examples include the Voyager encounter data on a series of CD-ROMs, data from Dynamics Explorer, Coastal Zone Color Scanner and Total Ozone Mapping instruments on the Nimbus spacecraft which have been converted to optical disks. Most recently the Magellan data has been stored on CD-ROM. We will continue and expand these efforts, guided by the needs and direction of the scientific community.

GAO Recommendation: Archive valuable scientific data in facilities that meet National Archives and Records Administration (NARA) regulations.

NASA Response: We will continue to comply with NARA regulations and upgrade facilities where appropriate. Note that there is a significant cost associated with complying with every specification.

Note also that the Tape Storage and Storage Facility, which represents the largest repository criticized in the report, has subsequently been retested and now complies to NARA temperature, humidity, and other controls.

GAO Recommendation: Develop and implement agency-wide tape management and maintenance standards which include all NARA regulations and NIST guidelines.

NASA Response: NASA will initiate an effort to determine whether additional guidance beyond what is currently available is required and appropriate. This will be performed in the context of an overall Information Resources Management (IRM) function and in conjunction with the NASA Office of Safety and Mission Quality.

GAO Recommendation: Ensure that the offices and officials responsible for managing science data are identified and their responsibilities clearly defined.

NASA Response: The roles and responsibilities are well understood. The overall science data management policies and procedures have been revised to reflect the current environment and future emphasis. Each science division has a separate data management committee to ensure the flow of data to the archive and to the public. For example, the Astrophysics Science Operations Management Operating Working Group (SOMOWG) ensures that Astrophysics mission data is appropriately handled and is very active in reviewing all Astrophysics Project Data Management Plans (PDMPs). In addition, the policies and implementing instructions are being updated .

GAO Recommendation: Ensure that NASA officials responsible for overseeing NASA IRM periodically review NASA's data management and archiving to ensure compliance with NARA regulations.

NASA Response: For the IRM reviews which occurred in FY 1990 as part of the NASA IRM Review Program, the on-site portion included the following:

a. Briefings and document review of archiving and safeguards in place. b. Physical inspections of all on-site tape storage facilities. c. Participation of Institutional Program Offices to review their centers. d. NARA has instituted a NASA-wide review of records disposition, including magnetic tapes. These one week visits to field centers will be completed in 1992. In FY 1991, NASA formally incorporated tape archiving requirements as part of the NASA IRM Review program.

GAO Recommendation: Ensure that NASA's data management and archiving are allocated adequate resources to properly store and maintain NASA's space science data holdings.

NASA Response: NASA has continued to place significant emphasis on data management as an integral part of our current and planned science programs, along with commitment to stewardship of science data products.

We have sought to ensure appropriate funding for data management and archiving, and that it is included in all science discipline budgets. The Office of Space Science and Applications (OSSA) has a centralized function to oversee the policy guidelines and standards for assessing the flow of data into archives to be accessed and utilized by the general research community.

The current proposed FY 1992 budget includes a $4 million augmentation to support additional OSSA-wide data management archiving. This initiative is to integrate all data from current and past missions into a managed archive and to put in place a process to assure the flow of data from future missions into discipline data system.

For future missions, data management and archiving will continue to be among the most important elements in mission planning and management. It should be noted that Project Data Management Plans (PDMP) have been completed for missions since 1985, and are in process for upcoming planned missions. The emphasis and priority given to the data archiving and distribution systems for the Hubble Space Telescope and the Upper Atmosphere Research

Satellite are examples of our commitment. In addition, there has been an initial delivery of the science data from the Magellan mission to the NSSDC, per the PDMP.

The most significant demonstration of the importance of data handling and storage will come as the Earth Observing System (EOS) gets underway. EOS program planning and funding reflects the importance of investing in necessary data management capabilities. In the EOS program, 60% of total funds over the life of the program will be devoted to data management, ground operations and science, in contrast to the typical allocation on most past major missions where the majority of funds support the development of space hardware. The Earth Observing System Data Information System (EOSDIS) is a separate line item from instrument development. Indeed, the data system is so important that it will be brought on-line several years before the launch of the EOS platforms. This will allow researchers to derive the maximum information from existing and upcoming Earth science missions, enabling them to test and perfect the data system in advance of larger data flows from the EOS platforms. The magnitude of the commitment reflects a recognition that archiving, delivery, and utilization of data are essential to mission success.

In closing, NASA recognizes the difficulty associated with the large data volumes and rates for future science missions and is treating this challenge seriously in mission planning for all our science disciplines. NASA has made significant progress in the archiving and management of its science data, in order to meet the needs of the science community. For example, the Master Directory is operational and the census of Principal Investigators has been completed. NASA has a sound data management program, one that will support the science research community.

Question 47: In FY 1991 the Committee appropriated funds for the Johnson Space Center Operations Automatic Data Processing (OADP). Additional funds are included in the FY 1992 request. What is the status of this OADP procurement?

Answer 47: The procurement for the Operations Automatic Data Processing (OADP) has resulted in a contractor selection. Contract award is anticipated in the August 1991 timeframe.

Educational Activities

Question 48: The Committee has provided significant increases in NASA education activities. It supported creation of an Associate Administrator for Education and requested a report on implementation. Has the Agency created such a position? If not, why is the Agency dragging its feet on both the position and the report?

Answer 48: Response to be provided under separate cover.

Question 49: The Agency, in response to the Augustine

Committee suggestion, created a new position of Associate Administrator for Human Resources. Why not expand this position to be Associate Administrator for Education and Human Resources, organizing this activity as the National Science Foundation does?

Answer 49: Response to be provided under separate cover.

Question 50: Is there a designated Director of Education at each NASA center whose job is strictly science and mathematics education? Of the nine field centers, how many have someone formally in charge of education, and in which office is it located?

Answer 50: Each of the nine NASA field centers has a designated director of education whose job is strictly to administer pre-college student and teacher programs in mathematics, science and technology education. Each of these directors of education has the institutional title of Center Education Program Officer (CEPO). The CEPO and his/her staff are located generally in either the Office of Public Affairs or Office of External Affairs.

In addition, each NASA field center has a University Affairs Officer, responsible for managing training and research programs at the university level. These programs are directed at undergraduate and graduate students as well as faculty and contain research components. The University Affairs Officers are, for the most part, technical staff who report to the center's chief scientist.

Question 51: What kind of coordination takes place among the centers? For example, how would Goddard Space Flight Center learn about a successful program at the Kennedy Space Center, or vice versa?

Answer 51: Coordination of educational and university programs among NASA Headquarters and field centers is comprehensive. Annually, the Headquarters Educational Affairs Division Branch Chief manager for pre-college education programs holds a separate meeting for all Center Educational Program Officers. The object of this meeting is to provide program information updates, program planning and coordination, and policy conformance. These annual coordination meetings are followed by periodic teleconferences throughout the year involving Headquarters and also NASA Centers to update the educational staff on recent developments, emerging issues and related topics. This same program coordination procedure is followed by the Headquarters Educational Affairs Division Branch Chief for University Programs and center University Affairs Officers.

During the fall of each year, the Director of Educational Affairs convenes an agency-wide meeting of all pre-college and university affairs offices to provide agency-wide coordination of all NASA education programs. The goal of this annual meeting is to provide executive leadership and policy direction to the NASA centers in overall program composition and direction. NASA education and university affairs staff also receive briefings by the Administrator or his designee and other NASA senior managers on programmatic and other issues facing the agency during the upcoming fiscal year.

Question 52: Last year, you indicated that over 30,000 teachers participated in NASA educational programs. How many science and mathematics teachers will participate in 1991? In 1992? What form does this "participation" usually take? Is there any formal centralized planning which the Agency does to ensure that these teacher training programs really work? When was the last time they were evaluated?

Answer 52: Last year over 113,000 teachers participated in the totality of NASA's educational programs. Our forecast is that 136,000 teachers will participate in 1991 and 141,000 will participate in NASA programs in 1992.

Participation takes place in several forms and formats. For example, in FY 1990, 80,000 teachers participated in the Teacher Resource Center Network Program; 600 in Teacher Resource Center Network workshops; 215 in NASA Educational Workshops for Elementary School Teachers and NASA Educational Workshops for Math, Science and Technology (NEWEST/NEWMAST); 50 in Mathcounts workshops; 330 in Urban Community Enrichment Program; and 20,000 in Aerospace Education Services Program (AESP) teacher workshops.

Planning for these programs is done at the Headquarters level. To ensure coordination and efficiency in operation, planning meetings that include field center staff participation and input are held prior to the start up of each program. Review and follow-up meetings and teleconferences are held to assess program effectiveness and recycling of information for the next iteration of a particular program.

Each program is evaluated annually upon completion based on objectives and other desired outcomes. Corrections and/or modifications to techniques, content and procedures are made for the next program cycle as revealed to be necessary.

Some programs such as AESP, Spacelink, and Teacher Resource Centers are monitored continually for difficulties that may cause problems in administration and performance. Additionally, plans call for all major NASA education programs to receive a review of evaluation components by independent entities during the better part of FY 1991, and in FY 1992.

Question 53: NSF and the Department of Energy (DoE) have developed a program to train 1000 teachers next year at five different DoE laboratories. Does NASA have any similar kind of agreement with the NSF, the federal government's acknowledged specialist in science and mathematics teacher training?

Answer 53: NASA's Educational Affairs Program utilizes the specialized resources of NSF in several important ways. First, we use NSF's Science and Engineering Indicators as a valuable data base to identify science and mathematics education trends concerning student and teacher characteristics and performance. This data helps to shape NASA's educational program strategy at the pre-college and university levels.

Secondly, in the area of teacher education funding, NSF supports one of our most effective pilot teacher programs, "A Comfortable Approach to Teaching Science." Conducted by NASA's Jet Propulsion Laboratory, this innovative summer program for elementary teachers also includes the administrator of the participating teacher's school.

Thirdly, NSF's expertise was used in the development and proposal review of our recent Pre-service Teacher Education Program. This pilot program operating at Rensselaer Polytechnic Institute and Bethune-Cookman College, is designed to demonstrate how aeronautics and space concepts can be integrated into the curriculum of student teachers in Colleges of Education. Also, we review and sometimes endorse science and technology education proposals submitted to NSF by educational organizations.

Fourth, we collaborate with NSF on student, teacher, and faculty education strategies and programs through our active participation on the Committee on Education and Human Resources of the Federal Coordinating Council for Science, Engineering and Technology (FCCSET).

Finally, in addition to utilizing NSF's expertise, we also work closely with other expert organizations such as the National Science Teachers Association (NSTA); National Council of Teachers of Mathematics (NCTM); Mathematical Science Education Board (MSEB); International Technology Education Association (ITEA); and the American Society for Engineering Education (ASEE).

Maintenance

Question 54: A GAO report (Stronger Commitment to Curb Facility Deterioration) concluded that NASA has a substantial backlog of deferred maintenance at the field centers. How much is the Agency requesting in FY 1992 to combat this maintenance problem, and at what centers will it be used?

Answer 54: The following table lists the amounts requested for each center in FY 1992 to address the annual recurring facilities maintenance requirements. The FY 1992 request does not fully meet the annual recurring facilities maintenance requirements, and it does not contain adequate funding to eliminate any significant portion of the present backlog of deferred maintenance. The annual recurring maintenance requirements are those funds needed to maintain facilities in a satisfactory condition without adding to the current backlog of deferred maintenance. The backlog of deferred maintenance has accrued over time as a result of underfunding in prior years. NASA plans to gradually ramp up over a period of years, to a 3.5 percent of a facilities replacement value as a guide for budgeting for annual recurring facilities maintenance funding to phase in the National Research Council's recommendation.

FY 1992 Budget Submission
NASA Facilities Maintenance
($ In Millions)

Center	Annual Facilities Maintenance Request
ARC/DFRF	34.80
LaRC	23.30
LeRC	37.20
OAET Total	95.30
GSFC/WFF	20.30
JPL	13.20
OSSA Total	33.50
JSC/WSTF	24.80
KSC	47.10
MSFC	16.60
SSC	11.70
OSF Total	100.20
NASA Total	229.00

Question 55: How does the FY 1992 request compare with the actual need for deferred maintenance? What would be the full cost required to eliminate the deferred maintenance problem at the facilities? Please provide a table that outlines, center-by-center, the needs in terms of cost and schedule.

Answer 55: The NASA FY 1992 request does not contain adequate funding to fully meet the FY 1992 annual recurring facilities maintenance requirements and it does not contain funding to eliminate any significant portion of the present backlog of deferred maintenance. The FY 1992 funding request is the initial step to a gradual ramp up to the NRC recommended 3.5 percent funding level to attain an adequate annual recurring facilities maintenance funding level. The present backlog of deferred maintenance will require additional funding over and above the 3.5 percent annual requirements level.

The following table lists the estimated amounts required for each center in FY 1992, for the annual recurring facilities maintenance requirements and lists the present estimated backlog of deferred maintenance.

The estimated full cost required to eliminate the deferred problem is listed under the column "Estimated Backlog of Deferred Maintenance Requirements". It is important to note that NASA has underway a significant review and analysis of facilities maintenance funding requirements that includes detailed condition

FY 1992
NASA Facilities Maintenance Funding
($ In Millions)

Center	Est. Annual Facil. Maintenance Funding Requirements (Actual Needs)	Est. Backlog of Deferred Maint. Requirements	Total Est. Facil. Maintenance Requirements
ARC/DFRF	68.90	154.40	223.30
LaRC	56.80	118.00	174.80
LeRC	58.10	106.00	164.80
OAET Total	183.80	378.40	562.20
GSFC/WFF	27.18	17.32	44.50
JPL	17.17	1.61	18.78
OSSA Total	44.35	18.93	63.28
JSC/WSTF	38.00	95.00	133.00
KSC	117.00	290.00	407.00
MSFC	58.00	200.00	258.00
SSC	37.00	130.00	167.00
OSF Total	250.00	715.00	965.00
NASA Total	478.15	1112.33	1590.48

assessments at many centers to better quantify the actual backlog of deferred maintenance. Until this analysis is completed, we are utilizing the National Research Council's suggested method of funding an annual 3.5 percent of the calculated replacement values of our facilities for annual recurring maintenance activities. The estimate of the backlog of deferred maintenance is based on field centers' estimates and a limited number of actual condition assessment surveys. These estimated figures will become more accurate in upcoming budget cycles as the analyses are completed.

The schedule to eliminate the backlog of deferred maintenance is totally dependent on the amounts of funding that can be made available for this purpose. Future budget constraints are likely to continue to impact our ability to fully fund all facilities maintenance needs. In prior fiscal years, overall reductions in agency budget requests have necessitated internal reallocation of available funds that were planned for facilities maintenance. NASA plans to conduct facilities condition assessments on a frequency of at least every five years. Considering the time required to complete facility condition assessments, to program funding , and to perform the of deferred maintenance,a five year period to eliminate the present backlog of deferred maintenance would be required assuming adequate funding is available to fully fund both the annual recurring maintenance costs and the backlog of deferred maintenance.

Question 56: The GAO report recommended four specific steps to deal with deferred maintenance, the most crucial of which was to establish agency-wide standards that would force the field centers to make this maintenance a priority in an organized way. Have these standards been developed? If so, provide a copy of them for the record. Do the standards set a minimum annual threshold which each center must budget to deal with maintenance?

Answer 56: NASA presently has in draft a NASA Management Instruction (NMI) which should be issued by late summer. The NMI articulates the Agency's policy on the funding of facilities maintenance and assigns responsibilities and accountability for the program. In addition, a new Agency handbook on facilities maintenance is presently under accelerated development with release expected prior to the end of 1991. This comprehensive new handbook has been reviewed by center level facilities maintenance managers during the Agency's annual facilities maintenance workshop held in late April of this year. A second draft is being prepared presently for another working level review by the Centers sometime in June. The final draft is planned to be ready for the Agency formal review and approval process by late this summer.

The NMI, as outlined, establishes the desired objectives for funding facilities maintenance at a level to meet the National Research Council's recommendation of 3.5 percent.

Management

Question 57: A GAO report (Funding for NASA's Safety Organizations Should be Centralized) criticized NASA's management structure for safety and quality assurance noting that while there was an Associate Administrator for Safety and Mission Quality, the field center safety organizations received funding from the projects for which they had oversight. Doesn't this lack of independence by center Safety Officers compromise their efforts?

Answer 57: In every case, the field center safety organizations report directly to the Center Director, with a dual reporting responsibility to the Associate Administrator for Safety and Mission Quality. NASA holds the program/project manager directly responsible for safety. The program/project managers have direct budget control for their programs. The field Center safety organizations primary functions are policy, regulation, oversight, enforcement and audit. They have a shared responsibility in that they must ensure that the safety systems in place are functioning properly and that they are effectively exercising their oversight responsibilities. It is the Agency's position that the fact that the Associate Administrator does not control the budgets for the field Center safety organizations enhances impartiality, in that safety and mission quality decisions are not tempered by resource requirements.

Question 58: In the event of a problem resulting from a safety or mission quality failure, who is accountable -- the project directors or those responsible for safety and mission quality? In what way is the Associate Administrator for Safety and Mission Quality accountable?

Answer 58: The Associate Administrator for Safety and Mission Quality functions as policy, enforcement, oversight and audit. The Associate Administrator is an independent voice and authority for safety matters and for program quality. The project director has direct responsibility for the safety and mission success for his project. However, by virtue of his independent oversight role, the Associate Administrator has a shared responsibility to ensure that checks and balances and systems are in place with sufficient vigor to avoid safety or quality problems.

Question 59: A recent NASA Inspector General report has found that printing cost incurred by the Agency could be substantially reduced. The report indicated that GSFC spent almost $100,000 on its annual report! How are such costs justified? What steps are being taken to reduce printing costs and publications costs? For example, the report suggests consolidation of printing activities and elimination of duplicate equipment purchases. Are these suggestions receiving serious consideration?

Answer 59: As a research and development organization, NASA's products are printed reports containing its research and engineering results, and one of NASA principle functions is to ensure that the results of its research are disseminated. Consequently, printing is integral to NASA's research program. In advance of the completion of many of our technical efforts and the publication of the final report, it is useful to keep those in the field apprised of the diversity of projects and their status, and this is often done through the annual reports of our centers.

In particular, the Research and Technology Report of the Goddard Space Flight Center (GSFC) is a tool used by a wide range of diverse organizations at GSFC, across NASA and the Federal Government, and by the research community at large. The variety of uses of this report negates the need for a myriad of individual publications, thereby focusing consolidated costs into this one publication. The $100,000 number identified by the Inspector General was actually $97,000 and covers technical writing and editing ($20,000), printing through the GPO ($43,000) of 2,000 copies of the 284 page document, and other publication-related expenses ($34,000).

During the past year, NASA has taken several steps in response to the report of the Inspector General. First, we are revising our policies to address the problems noted. Second, we have moved the printing oversight function to NASA's Scientific and Technical Information (STI) Program, where we believe we can more appropriately address the entire process of manuscript preparation, printing, distribution, and archiving. Finally, we have begun to review our operations in light of the Inspector General's findings, and have already downgraded one of our printing facilities to a duplicating facility.

We will continue to give the recommendations of the Inspector General serious consideration. GSFC, in particular, has been actively pursuing cost-cutting measures. Currently, negotiations are underway with the GPO for additional contract support for large-scale duplication facility. As such, reductions in equipment requirements and attendant costs, supply budgets, maintenance costs, and the number and skill levels of employees have been achieved. In the pre-press arena of writing, editing, typesetting, design and layout of camera-ready copy, various effective cost-saving initiatives have been adopted. Streamlined processes and restrained application of design, color and format standards are an integral part of GSFC's publications program.

QUESTIONS SUBMITTED BY SENATOR KERREY

Space Station

Question 1: A number of scientists have criticized the downsized space station, questioning its scientific value. What do you see as the major scientific benefit of the station?

Answer 1: Space Station Freedom will provide the ability for world-class research to be conducted in the areas of Space Life Sciences and Microgravity Sciences.

Space Station Freedom (SSF) has great significance for NASA Space Life Sciences Programs. For the first time it will be possible to replicate experimental data with appropriate controls and real-time analytical capabilities over extended periods of time. SSF will provide the means to acquire basic knowledge on mechanisms of gravity perception while paving the way for extended-duration exploration missions with humans.

Research in long-duration human life sciences is considered to be an essential objective of SSF's pressurized modules. Space Station fulfills the Space Life Science goals to develop the knowledge required to assure crew health, well-being and performance by studying adaptation of living organisms to spaceflight. It also will conduct fundamental scientific investigations on the role gravity plays on the life process itself.

A large majority of NASA's Space Life Science research requires the extended operations of a fully-equipped, permanently staffed laboratory. Such a facility enables the life sciences research community to perform biomedical, biological life support and exobiology studies. First, this allows exposure of experimental specimens over a significant period of the organisms' life span, in some cases for multiple generations. Secondly, it permits systematic research on statistically significant specimen populations with real-time experiment replication to validate initial experiment observations. Finally, controlled studies utilizing matched specimen populations on the centrifuge will determine threshold responses and dose-response relationships in a wide range of living systems before the requirement for a human-rated centrifuge is validated.

The overarching objective of the NASA Microgravity Program is the use of space as a laboratory to conduct basic research and development. The on-orbit microgravity environment with its substantially reduced buoyancy forces, hydrostatic pressures, and sedimentation, enable us to conduct scientific investigations not possible on Earth. This environment allows processes to be isolated and controlled and measurements to be made with an accuracy that cannot be obtained in the terrestrial environment. Many of the processes being studied also play dominant roles in diverse Earth-based technologies as well as technologies that support NASA's overall goals for future extraterrestrial exploration. The low gravity-environment therefore demands investigation both for scientific and technological reasons.

NASA has defined three major science categories in order to develop a program structure. These areas of research and development to be conducted in Space Station encompass 1) fundamental science, which includes the study of the behavior of fluids, transport phenomena, condensed matter physics and combustion science; 2) materials science, which includes electronic and photonic materials, metals, alloys, glasses and ceramics; and 3) biotechnology, which focuses on macromolecular crystal growth and cell and molecular science. Experiments in these areas typically seek to provide observations of complex phenomena and measurements of physical attributes with precision enhanced by the microgravity environment. Microgravity research can also provide insights that could lead to a better understanding of Earth-based industrial processes and/or space-based production of new materials with unique properties.

The goal of microgravity research on the SSF during the early years will be to maximize, to the extent practical, the quality of the science return. As the research matures, the experiments will become more sophisticated and the program will define and cultivate focused research areas of the highest scientific potential. Achievement of these goals will be accomplished through implementation of a plan that will concentrate on research in the areas of fluid dynamics and transport phenomena, combustion science, and biotechnology during the utilization flights and an emphasis on materials science and protein crystal growth during the periods between the Shuttle flights.

There are six facilities planned for utilization of the SSF on-board environment for microgravity experiments. They are as follows: Advanced Protein Crystal Growth Facility, Space Station Furnace Facility, Modular Containerless Processing Facility, and Modular Combustion Facility, Fluid Physics/Dynamics Facility, Biotechnology Facility.

Question 2: In what specific areas do you believe it contributes to U.S. competitiveness?

Answer 2: The Space Station Freedom program drives the development of many technologies. Examples of technologies and systems that will be advanced by Space Station development and operation include: environmental-control and life support; power generation, storage and management; thermal control; crew health care; data processing and distribution; guidance, navigation and control; structures and materials; and operational methods. Commercial applications for these technologies could have strong market potential which will enhance U.S. industrial competitiveness.

The Space Station program contributes to U.S. competitiveness in other ways. The Space Station program has created thousands of engineering and technical jobs and has replenished the pool of knowledge and experience in the design, manufacture and operation of numerous technologies. Space Station Freedom has provided inspiration and will continue to provide inspiration to our children to make science and technology their life's work. The Space Station program will demonstrate the United States' ability to lead the world in cooperative technology development, contributing to our prestige and influence in these matters.

Construction of Space Station Freedom will provide U.S. industry with otherwise unattainable expertise in the construction and assembly of large facilities in space, a key prerequisite to private sector, large-scale investment in space and a significant enhancement to U.S. industry's competitive position around the globe.

Question 3: Canada, Japan, and European countries are cooperating in development of the space station. What is the expected dollar contribution of each?

Answer 3: Our agreements with the international partners provide for each partner to design and develop specific hardware elements, not a fixed value of hardware or services. The current value of the three partners' hardware contributions is estimated to be approximately $8 billion. Once operational, each partner is responsible for the operations costs associated with the hardware it provides (i.e., sustaining engineering, spares and launch costs for spares) and also for a share of the common resupply and operation costs in equal proportion to the agreed percentages of Space Station utilization. Although the partners do not report their costs to us, an estimate of the value of their hardware contributions is provided below.

ESA	$4.5 billion
Japan	$2.2 billion
Canada	$1.0 billion

Question 4: What would funding the station do for the advancement of science and U.S. competitiveness that additional funding for space science or additional funding of National Science Foundation individual researchers would not do?

Answer 4: The U.S. supports a broad range of science activity, both ground- and space-based, to ensure the advancement of science and U.S. competitiveness. Just as the National Science Foundation provides the infrastructure to support its ground-based science, so must NASA through laboratories such as Space Station Freedom for space-based science. Consequently, Space Station Freedom is viewed as a critical element in a well-balanced U.S. science program.

Space Station Freedom is a visible demonstration to the world of our technological prowess and expertise which is of benefit in stimulating international sales of U.S. aerospace products and services. The technologies under development for the Space Station systems significantly extend, or in some cases, establish the leadership of the U.S. industry. Space Station

Freedom should be viewed as a research and development investment in our future and as a provider of goods and services to other nations that choose to utilize space-based systems. Our current positive balance of aerospace trade is predominantly associated with commercial aircraft sales. This position of leadership was forged with Government leadership that focused the entrepreneurial spirit of the private sector. The market for space systems and services is growing and will continue to do so for decades. The Space Station program will provide U.S. industry with technology and experience that will ensure U.S. competitiveness in the next century.

Additionally, once in orbit, Space Station Freedom will provide unprecedented opportunities for first-class basic and applied research in life sciences and microgravity materials research. The research will be directed toward both our commitment to improve the quality of life on Earth and our national goal of world leadership in space development.

Question 5: If the station were not funded, would you view that as essentially the end of manned space exploration?

Answer 5: Cancellation of the Space Station Freedom program would mean a total disruption of the United States' manned space program. It would have a devastating impact upon the unique and highly refined institutional base resident at NASA and its contractor/university teams. The current NASA program is very interdependent. Space Station Freedom does not stand alone. It is woven into the fabric of our space science, space transportation and space tracking programs. Cancellation of Space Station Freedom would place in danger the future of the New Launch System, the Advanced Solid Rocket Motor, and our microgravity and life sciences research programs, to name just a few.

Manned space flight will nonetheless continue around the world. The Soviets have a strong track record on manned space flight activities, with no reduction in sight, and both the Europeans and the Japanese have expressed a long-term interest in developing autonomous manned space programs. The question is not whether manned space exploration will continue, but rather, who will be the world leader, and whether the U.S. will be involved.

Question 6: If we returned to a Skylab or an Apollo-Soyuz type project, could we continue to gather significant information on manned space activity or have we simply done what we could at that level?

Answer 6: A Skylab type space station would fall far short of Space Station Freedom in terms of both quality and quantity of research capability. For example, our previously flown Skylab had only half the interior volume and one-seventh of the power as compared to the permanently manned Space Station. Additionally, the cost to develop and deploy a Skylab-type design Space Station would be prohibitively expensive when the cost of building the module(s) as well as the cost of developing and producing a launch vehicle to place it in orbit are considered. A Skylab-type design could provide information on the effects of extended duration weightlessness on humans.

The Apollo-Soyuz project was a short-duration project which would provide no benefits that are not currently obtainable from the Space Shuttle with Spacelab.

Question 7: If the space station were terminated, what would you see as the priorities and principal focus of NASA in the years ahead.

Answer 7: We have no plans for the future that do not include Space Station Freedom. As stated in a previous answer, the Space Station is woven into the fabric of nearly all of our current and planned programs.

Space Science

Question 8: The Augustine panel recommended that the space science program should be NASA's highest priority.

a. What is your reaction to that recommendation?

b. What are the principal on-going space science programs in the fiscal 1992 budget other than Mission to Planet Earth?

c. Have you delayed or downsized any space science programs in the past several years?

d. Would meeting the Augustine recommendation require more assets than NASA has planned to budget for space science in the out years?

Answer 8a: NASA has endorsed this recommendation and has emphasized that the Agency has been and will continue to be in full compliance with the intent to support funding for space science at least at the current 20 percent of the combined total of Research & Development plus Space Flight Control & Data Communications accounts.

The present launch manifest and the FY 1991 budget for OSSA are consistent with the premise of priority being given to space science. The President's FY 1992 budget request for OSSA, including the Mission to Planet Earth and the science portion of Mission from Planet Earth, is 22.9 percent of R&D plus SFCDC budgets.

b. NASA's on-going space science programs in the FY 1992 budget include: Research and Analysis (R&A) programs; Mission Operations and Data Analysis (MO&DA); Operational Medicine; Flight Projects; and, Spacelabs and other carriers.

On-going flight projects in operation include: Magellan, Galileo, Ulysses, the Hubble Space Telescope (HST), the Gamma Ray Observatory (GRO), the Cosmic Background Explorer (COBE), Roentgen Satellite (ROSAT), the Combined Release and Radiation Effects Satellite (CRRES), Voyagers 1 and 2, the International Ultraviolet Explorer (IUE), the Interplanetary Monitoring Platform (IMP-8), and the Pioneer Venus Orbiter.

On-going space science missions to be launched during the next year include: the Spacelab Life Sciences (SLS-1) mission in June, the Upper Atmospheric Research Satellite (UARS) in September, and the International Microgravity Laboratory (IML-1) in early 1992.

On-going flight programs in development include: the Extreme Ultraviolet Explorer (EUVE), X-ray Timing Explorer (XTE), ATLAS-1, USML-1, TOPEX/Poseidon, the Advanced Communications Technology Satellite (ACTS), Mars Observer, Earth Probes, the Global Geospace Science mission (GGS), the Comet Rendezvous Asteroid Flyby (CRAF)/ Cassini, and the Advanced X-Ray Astrophysics Facility (AXAF). Small Explorer missions in development include: the Solar, Anomalous, and Magnetospheric Particle Explorer (SAMPEX), the Fast Auroral Snapshot Explorer (FAST), and the Submillimeter Wave Astronomy Satellite (SWAS).

c. Yes. The three major components in managing space science missions have always been cost, schedule, and content. When management flexibility is limited in any one of these areas, the likelihood for change or impacts to the other two components increases.

Among some of the most publicized examples of delayed space science programs are several of our highly successful missions currently in operation: Magellan, Ulysses, the Hubble Space Telescope, the Cosmic Background Explorer (COBE), and the Combined Release and Radiation Effects Satellite (CRRES).

A major component of our resources management approach is the development of descoping plans for all new missions, which include thresholds for implementation of descoping early in the program. If, during the course of a space science program, it is determined that the total budget will exceed the planned resources, NASA is prepared to descope the mission to fit within established funding limits. As a last resort, we will adjust program science content and mission complexity to contain costs. The most recent example of a downsized or "descoped" program is the Comet Rendezvous Asteroid Flyby (CRAF)/Cassini mission. In order to maintain adequate funding and a balanced science payload for both CRAF and Cassini, two CRAF instruments -- the Penetrator/Lander (PENL) and the Scanning Electron Microscope/Particle Analyzer (SEMPA) -- were deleted from the CRAF science payload.

d. The President's FY 1992 budget request for NASA supports the space science program and is consistent with the recommendations of the Augustine committee. The FY 1992 budget strongly supports both a core science program and the Mission To Planet Earth Program, and is consistent with the recommendation for the Mission From Planet Earth. Meeting the Augustine recommendation does not require more assets than NASA has planned to budget for space science in the out years, but it does require Congressional support of the Agency's budget request. Significant cuts to NASA's budget could seriously impact our ability to implement the core space science programs, Mission To Planet Earth, and Mission From Planet Earth programs recommended in the Augustine report.

It is important to note that the Augustine committee report recommends no less than 8 to 10 percent real growth in NASA's budget each year to adequately address the priorities outlined. All of the Committee's recommendations to NASA concerning program priorities assume 8 to 10 percent real growth in the NASA budget, with Space Science and Applications sharing in this growth.

Question 9: Are there new space science initiatives on the drawing boards for the 1993-98 period or thereabout?

Answer 9: Candidate missions have been identified for the mid 1990s in each of the three program strategies--the core program, Mission to Planet Earth and Mission from Planet Earth. For example, high priority major or moderate missions for the 1993-97 timeframe in the core program include the Orbiting Solar Laboratory (OSL), the Space Infrared Telescope Facility (SIRTF), and Lunar Observer.

Question 10: What do you see as the next major initiatives in the space science area?

Answer 10: NASA is actively working with the science and research communities through its advisory groups to reassess the current strategic plan, examine revisions, and prioritize candidate missions for the late 1990s. In view of the changing character of space science and applications, the decision rules for determining program mix will also be reevaluated.

The Space Science and Applications Advisory Committee (SSAAC) will hold its first triennial review of strategies and proposed mission queues early this August. Recommendations will be made by the fall of 1991.

To prepare for this Summer meeting of SSAAC, we are currently in the process of assessing candidate missions for the core program, Mission to Planet Earth and Mission from Planet Earth. This assessment is guided by the overall science strategy guidelines formulated by the National Academy of Sciences. Close coordination is maintained with the relevant committees and boards of the National Academy of Sciences, particularly the Space Studies Board.

Landsat

Question 11: Does NASA have a position on whether LANDSAT should remain under NOAA, be transferred to DOD or perhaps be transferred back to NASA?

Answer 11: According to the provisions of the Land Remote Sensing Act of 1984, management of the Landsat program is the responsibility of the National Oceanic and Atmospheric Administration (NOAA).

Question 12: What would be the pros and cons of transferring the system back to NASA?

Answer 12: The issues associated with the Landsat system have been discussed extensively within the Administration and Congress over the last ten years. NASA agrees with the National Research Council (NRC) assessment of the importance of both past and future Landsat data as part of the data set for global change research. We believe that continuing this critical data set is the most important issue associated with the Landsat program.

NASA researchers use Landsat data for a variety of purposes, including research on bio-geochemical cycles, geology, geodynamics, ecology, and applications research. NASA believes the means to insure the widest availability of data to Earth science researchers, and to expand the number of investigations using Landsat data, would be to make all of the data available to research users at the marginal cost of reproduction, perhaps through the EROS Data Center, operated by the United States Geological Survey (USGS), which has been designated as a Distributed Active Archive Center within the EOS Data and Information System (EOSDIS).

Question 14: Is NASA supporting any analysis or dissemination of LANDSAT data?

Answer 14: NASA supports a significant amount of analysis of Landsat data. In addition to current Landsat data use by individual investigations, NASA intends to establish a Pathfinder data activity to process the Multi-Spectral Scanner (MSS) data recently released by the Earth Observation Satellite (EOSAT) Company for research use. We are beginning an assessment of the scope of processing required for the MSS data, which includes the entire MSS data set except for the last two years, and of the resources needed to include this data in the EOSDIS.

USGS, through its EROS Data Center in South Dakota, and EOSAT are responsible for the dissemination of Landsat data. NASA is working with USGS, the National Oceanic and Atmospheric Administration (NOAA), which manages the Landsat system, and EOSAT, which operates the system for NOAA, to facilitate the most complete access for researchers to Landsat data permitted by current law. Recent meetings between NASA and EOSAT officials explored issues related to future research availability of Landsat data. Follow-on meetings have been scheduled in the coming months to continue this dialogue.

Technology Utilization

Question 15: The Technology Utilization budget is scheduled to go from $24.4 million to $32 million in FY 1992. What are the priorities in the increased funding?

Answer 15: Some of the increase in FY 1992 is due to National Technology Transfer Center (NTTC) Development requirements ($4.0 million). The remaining balance is to permit some restoration of the Technology Applications project activities ($2.0 million) that had been severely curtailed in FY 1991 by overall budget cuts in NASA's appropriations, and the restructuring of the Industrial Applications Center (IAC) network to provide broader geographical coverage and a more uniform spectrum of services by those Centers ($2.0 million).

If we had to prioritize these increases by program, they would be ordered as follows:

1. IAC Network Restructuring
2. Technology Applications Project Activities
3. NTTC Development

The IAC network, now in competitive procurement, and the Technology Applications Project Activities, undertaken at NASA's Field Centers, are part of the established and ongoing base effort of the NASA TU Program. It is planned that, as NTTC develops as a national resource for federal technology transfer, it will become a core element of the NASA TU Program and an integral part of technology transfer activities across the Federal Government.

Question 16: The technology centers affiliated with NASA have provided a significant amount of information and data to businesses and industry throughout the country. What plans does NASA have for these centers? Why isn't greater use being made of them?

Answer 16: As indicated above in Question 15, we are in the process of restructuring the network formed by these Centers to provide full geographical coverage of the U.S.; make available a more complete spectrum of services to users by all Centers; and link their technology transfer efforts to those of their respective states and local governments. The resulting network of six Regional Technology Transfer Centers should provide greater access to users throughout the U.S. and a more effective mechanism for transferring NASA's and other federal laboratories' technology to the U.S. industry.

Education

Question 17: Last year I noted that proximity to a NASA facility could be a benefit for teacher training/ retraining and other educational activities. But, many of our states do not have a facility or aren't located close to one. What has NASA done to try to insure geographic equity in its educational programs?

Answer 17: There are a number of facets to NASA's education program that are specifically designed to offset geographic inequity associated with the location of facilities. Some of these are:

1) The Aerospace Education Services Program (AESP). AESP is primarily an outreach program that covers the entire United States. In FY 1990 AESP specialists conducted workshops in all 50 states for more than 20,000 teachers.

2) The NASA Urban Community Enrichment Program is also a non-geographically restricted education program that provides aerospace education programs to teachers and students in urban school districts with significant enrollments of underrepresented minorities. This program service is performed in two to three school districts each year for eight weeks at a time, involving up to 20 schools in each district.

3) The Teacher Resource Center Network consists of 10 Teacher Resource Centers at NASA field centers: 30 Regional Teacher Resource Centers at universities, planetariums, museums, and other sites; and a Central Operation of Resources for Educators (CORE) for a total of 41 centers in 24 states and the District of Columbia. The purpose of this network is to make NASA education materials available to all teachers in the United States regardless of geographic location. The goal of this program in NASA's Five Year Plan (1988-1992)is to have one Regional Teacher Resource Center in each state by 1992-1993.

4) The mobile teacher resource center van, a part of the LASER (Learning About Science, Engineering, and Research) program, is a key component in providing teachers access to NASA education program information and materials. During FY 1990 this vehicle has been especially effective in disseminating educational materials to cities and in remote geographic areas across the country.

In addition, the National Space Grant College and Fellowship Program is currently operating in 46 states and the District of Columbia. We expect to add Nebraska, Kentucky and Wyoming next year. None of these programs is based at a NASA field Center; all are at universities and almost all conduct K-12 programs for students and teachers. For example, last year, the Pennsylvania State University National Space Grant College & Fellowship Program engaged in curricular development for elementary and middle schools. They began a state-wide program to utilize the "Mission to Mars Exhibit" for 4-6th graders; ran a summer space academy for talented high-school students; added a very successful space component to an energy and technology program that used 107 presentations to reach over 5,000 students, and ran a debate day on space topics for 125 high school students.

Question 18: NASA offers SPACELINK to provide information to educators through computer networks. What is your experience with this program? Who is accessing it and for what purposes? Which of the materials in the system are most frequently accessed?

Answer 18: NASA Spacelink is a collection of NASA information and educational materials available electronically to educators and the general public through a computer system at the Marshall Space Flight Center in Huntsville, Alabama. The system may be accessed over regular telephone lines or through the Internet computer network. Since the system was made public in February 1988, NASA Spacelink has experienced continued growth in usage, and now averages over 5,000 calls per month. In the three months between February 1 and April 30, 1991, the system logged 16,000 calls from throughout the U.S., Canada, and several other countries.

At the present time NASA Spacelink has 5,724 active callers. (An "active" caller is anyone who has called the system at least once in the past 90 days.) We ask but do not require Spacelink callers to categorize themselves as teacher, student, journalist, or "other." Of our current active callers, 42 percent are teachers and students, 3 percent are journalists, and 49 percent are "other." The remainder have chosen not to categorize themselves. The number of teachers and students seems now to be growing faster than ever since Spacelink has been made available through the Internet.

Our records show that the most popular files fall into three categories: (1) Shuttle manifest (a listing of planned payloads, crews and launch dates); (2) the daily update of the NASA Select television schedule; (3) a listing of educational programs broadcast by satellite from the Lewis Center; (4) news releases and Shuttle status reports from the Kennedy Space Center; and (5) status reports on the Ulysses, Magellan and Galileo space probes. There is always a flurry of interest just before and during a Shuttle flight, with the callers downloading the flight's press kit, Mission Control status reports, and Keplerian orbital elements with which they can use their computers to track the Shuttle's location above the Earth. In addition, there is great interest in the "Computer Programs and Graphics" section of Spacelink, which among other things, contains a collection of educational software for a variety of computers, and actual imagery from Voyager, Magellan and the Hubble Space Telescope.

Response from callers has been overwhelmingly positive, as evidenced by the messages of thanks they leave on the system. Through these messages we infer that many callers are simply downloading files that they place on their own computer "Bulletin Boards" to be shared with callers in their local areas. Some of these callers are involved in education, and they make Spacelink files available to schools in their areas through their computer systems.

Spacelink is also used by planetarium and museum staffs for background material, and by parents who are introducing small children to computer communications. Further, many teachers use Spacelink's messaging facility to allow their students to ask questions of NASA. These questions range from first graders' "What is it like in space?" and "Why does the earth turn?" to more technical questions from high school students writing reports or doing research for the national debate topic. Our Marshall Space Flight Center's public inquiries staff answers these questions directly on the system or, when appropriate, by mail.

Question 19: Distance learning is being increasingly utilized for education in rural areas and areas where there are teacher shortages in certain subjects. Has NASA been involved in any distance learning projects; if so, please describe.

Answer 19: NASA has been actively involved in distance learning projects for some time. The Agency's involvement has included both direct and indirect service components.

Several examples illustrate NASA's commitment to direct support of distance learning projects. In conjunction with the ASTRO shuttle mission in December, 1990, the Agency produced a pilot project through which NASA was able to enrich middle school science curricula by transmitting live, interactive programming from the Space Shuttle. Through this program, teachers were able to enhance their classroom lessons related to the electromagnetic spectrum by utilizing Shuttle crew members to deliver a lesson while working in conjunction with a school teacher. This experience was supplemented by a Teachers Guide for the larger number of teachers who could not participate in the downlink. This distance learning enrichment model is currently being evaluated for future applications but it appears to have been successful in motivating students to pursue science study and in teaching specific course content.

NASA conducts a series of professional development satellite videoconferences for teachers. These live and interactive conferences are designed to update science and math teachers on science and technical developments in aerospace science. It helps those teachers to be better prepared to teach current information to their students. The video conferences also demonstrate techniques and strategies which teachers can utilize to instruct their students in complex science subjects. The NASA Videoconference Series for Educators has been successful in meeting its objectives as evidenced by the results of several assessments. Approximately 1,700 schools nationwide received the videoconference series during the 1990-91 school year.

NASA Select, our in-house television satellite service, is also available for distant learning. Public cable companies that access the NASA satellite, make available to the public and school systems live and recorded information and educational programming on space and related topics. Other NASA distant learning technologies include the Tele-lecture Program for schools that uses a telephone and slides for specialist presentations from remote locations; and our videoconferencing system (VITS).

NASA's Educational Affairs Division frequently provides technical and management support to distance learning projects by consulting on questions related to the operation of a distance education network. NASA also participates actively in organizations, conferences, and working groups related to distance learning.

Question 20: NASA has had perhaps unique experience with both satellite communications and computer systems. Have you looked at what additional efforts you might make in applying and evaluating these technologies in the classroom?

Answer 20: NASA is continually working to apply and evaluate a variety of educational technologies for the classroom environment. The Agency's commitment to technology is evidenced by the creation of an Educational Technology Branch within the Headquarters Educational Affairs Division. This branch has the responsibility for evaluating educational technologies and using the most effective of these as the delivery mechanism for many of the Agency's products and services.

Among the activities of the Educational Technology Branch has been the publication of the Bibliography of Software for Aerospace Education. Two editions of this comprehensive bibliography have been published to keep teachers apprised of available computer software and revised editions will be published regularly. NASA's experience in computer-based systems is also being used to develop new products and services in the area of computer-assisted instruction (CAI). In this regard, a series of CAI programs pertaining to the Hubble Space Telescope have been developed, and in computer databases, where data related to aerospace education are being compiled.

NASA is developing a Classroom of the Future in order to evaluate, develop, and implement various technologies for aerospace education. The first of these classrooms is currently in the development stage and NASA will ensure that the results of its research and development will be disseminated as widely as possible.

NASA is also working at a variety of levels to provide advisory and technical support related to satellite communications in education. For example, a representative from the NASA Educational Technology Branch has been appointed to serve on the EDSAT (EDucational SATellite) working group.

Question 21: Which of your educational efforts do you see as having the greatest impact on (a) teachers and (b) students?

Answer 21: NASA's educational goal is to help insure an adequate supply of scientists, engineers, and other technically trained personnel (Government, industry, and the universities) to meet the national civilian aerospace needs. This goal is accomplished through a strategy to:

1) capture student interest in science, mathematics and technology at an early age;

2) channel that student interest into math, science and

technology career paths; and

3) enhance the knowledge, skills and abilities of pre college teachers and university faculty.

The impact measure of each of NASA's education programs is a function of the strategy it reinforces. For example, our Spacemobile program reaches over 600,000 students at the elementary school level each year in attempting to capture student interest in science, math and technology. By defining impact in terms of numbers, therefore, the Spacemobile program has a significant impact. Moreover, the typical three-year waiting list of schools further attests to the perceived value of the program.

Two of NASA's educational programs that channel student interest into science, math and technology career paths include the Summer High School Apprenticeship Program (SHARP) program at the secondary level and the Graduate Student Researchers Program at the university level. The impact of the SHARP program is illustrated by the fact that, of the approximately 200 annual participants, over 99 percent enter college, with the majority majoring in science or engineering.

The Graduate Student Researchers Program impacts over 500 graduate students annually by providing paid fellowships and research experiences on NASA-related topics. Many of these students would otherwise be unable to pursue graduate studies.

Two examples of enhancing educational programs are NASA's on-center workshops (NEWMAST/NEWEST) at the pre-college level and the Summer Faculty Fellowship Program at the university level. Based on program evaluations, of the approximately 200 participants in NEWMAST/NEWEST, over 95 percent return to the classroom and use aerospace concepts they learned to teach in science, math and technology. Another impact of NEWMAST/NEWEST is that participants are recognized as effective educational leaders in their school and their community as a result of their participation in the programs.

In the Summer Faculty Fellowship Program of the over 300 annual participants, approximately 40 percent of the participants effectively compete by receiving research funding from NASA within 2 years of their tenure in the program. Additional impacts revealed from evaluation data indicate that faculty participants of the program revise existing courses and add new aerospace courses at both the undergraduate and graduate level, incorporating information and knowledge derived from their experience at the NASA field centers.

Question 22: Teacher training/retraining and curriculum development have been identified as two keys in having an immediate impact on education. What are your principal efforts in these fields and what are your 1992 priorities?

Answer 22: Teacher training and retraining will continue to be emphasized in NASA's aerospace education teacher programs such as the Aerospace Education Services Program (AESP); NASA Educational Workshops for Elementary School Teachers (NEWEST); NASA Educational Workshops for Math, Science and Technology Teachers (NEWMAST); Teacher Resource Centers; and cooperative efforts with other agencies and organizations through the Federal Coordinating Council for Science, Engineering and Technology (FCCSET).

NASA priorities in FY 1992 will focus on curriculum development activities in four (4) areas. These are:

1. The continued development of short publications for teachers on specific topics; coordination of curriculum development activities with other NASA offices to produce program related materials; and continued work with the astronaut flight crew operations at Johnson Space Center to develop Space Shuttle mission related materials for teachers.

2. Implementation of Project MASCOT (Mathematics and Science Careers of Tomorrow) in cooperation with the American Association for Counseling and Development. The purpose of Project MASCOT as a 3-year project is to motivate 4-6th graders to consider science, math and technology careers. In 1992, 500 elementary counselors will be trained to use the project materials. They in turn will train 5000 teachers to implement and use the materials.

3. Awarding of matching research grants in FY 1990 to Bethune-Cookman College, Daytona Beach, Florida, and Rensselaer Polytechnic Institute, Troy, New York, to develop pre-service and in-service training courses for teachers of grades K-6 to incorporate aerospace into their teaching processes. In addition to 300 undergraduate elementary education majors who will receive the pre-service training in 1992, NASA's priority is to provide in-service training to use the programs developed at Bethune-Cookman and Rensselaer to some 3000 practicing elementary education teachers. This effort will impact teacher training at these two institutions and other Colleges of Education.

4. Distribution of curriculum materials developed in the three categories above will be disseminated through NASA's Teacher Resource Center Network. This process will make the materials available to teachers across the country. Workshops, review sessions, and other formats can then be established for guidance in the use of the materials.

Question 23: What Space Grant College awards did you make in FY 1991 --to whom and for what purposes?

Answer 23: On February 6, 1991, NASA announced the selection of 26 Space Grant State Consortia, resulting from the Phase II competition of the National Space Grant College and Fellowship Program. Phase II offered previously non-designated states the opportunity to receive either Space Grant Program

Grants or Capability Enhancement Grants.

The Phase II Space Grant Program Grants were targeted at states with colleges and universities involved in nationally competitive aerospace research and educational programs. The 14 recipients were Alaska, Delaware, District of Columbia, Indiana, Kansas, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, North Carolina, Oregon, Rhode Island and Wisconsin. The 4-year, $150,000 per-year grants are being used to initiate new programs and strengthen existing capabilities.

Capability Enhancement Grants were targeted at states with limited aerospace activity. The 12 recipients were Arkansas, Connecticut, Idaho, Louisiana, Maine, Montana, Nevada, North Dakota, Oklahoma, South Dakota, South Carolina and West Virginia. The 4-year, $150,000 per year grants are being used to enhance aerospace education and research infrastructure.

Question 24: Please describe your Space Grant College program as envisioned in the FY 1992 budget.

Answer 24: In FY 1992 we anticipate involving in the Space Grant Program colleges, universities, industrial partners, nonprofit organizations and state and local governments from 49 states and the District of Columbia. At the present time, over 300 institutions throughout 46 states and D.C. are associated with the program.

As a result of the first phase of the program in FY 1990, 21 states were Designated Space Grant Colleges or Consortia in 1989. The programs initiated by the original designees are dynamic and continue to broaden and expand. New institutions have been added to the various consortia since the program began. We expect this trend to continue.

Twenty-six states recently (January 1991) were named Space Grant State Consortia under the second phase of the program. The states selected are just beginning to implement their programs, which will concentrate on the building up or broadening of the state's research infrastructure, along with the implementation of educational initiatives and, in many cases, public service programs.

In FY 1992 we expect to include three additional states, Kentucky, Nebraska and Wyoming, who are presently undergoing a planning period. During this time, representatives from each state will review and assess their state's specific needs and resources to better shape a viable program,.

QUESTIONS SUBMITTED BY SENATOR BYRD

National Technology Transfer Center

Question 1: During processing of the FY 1990 VA, HUD, and Independent Agencies Appropriation bill, I secured an amendment in the amount of $4 million for initial funding of the National Technology Transfer Center (NTTC) to be established at Wheeling Jesuit College in Wheeling, West Virginia. I am advised by the National Aeronautics and Space Administration (NASA) that, of the $4 million appropriated in FY 1990 for NTTC, the amount "obligated" for NTTC directly was $2.325 million. Approximately $400,000 of that was allocated to the Stennis Space Center for administration of the program and $637,810 was used for the NTTC portion of the $1 million NASA projects planning grant awarded to Wheeling Jesuit College on March 1, 1990. The remaining $1.675 million of the $4 million was utilized to support NASA's Industrial Applications Center network so that an integration process for the overall NASA network could be planned. There appears to be an excessive amount of NASA overhead in this program with very little funding finding its way to the College. Has anything been done to cut back on NASA overhead? What more could be done?

Answer 1: NASA "overhead" includes only that amount expended by NASA Headquarters in the management and oversight of the NTTC program planning, development, and implementation phases performed by contractor support personnel. The work performed at the Stennis Space Center (SSC) and by the Industrial Applications Center network in FY 1990 was developmental effort to assist Wheeling Jesuit College (WJC) in the early phases of program planning and development when WJC was insufficiently staffed to carry out these responsibilities. It is estimated that Headquarters management and oversight requirements will not exceed $1.5 million over the lifetime of the program. This constitutes less than 5% of the funds requested in the budget runout (i.e., $28.4 million).

Accordingly, over the span of the 5-year program, NASA projects that over 87% of the appropriated funds will be channeled directly to WJC for project development and implementation. This, of course, assumes that WJC will undertake full responsibility for the design, specifications, and acquisition of the Communications and Information System (CIS), which will be an essential component of NTTC operations.

Question 2: Last year, the Senate Report accompanying the FY 1991 VA-HUD and Independent Agencies Appropriation bill included the following language at my request:

The Committee recommends the full $5,000,000 requested for the National Technology Transfer Center [NTTC] at Wheeling Jesuit College in Wheeling, WV. This project will enter its third year of activity in fiscal year 1991, after careful planning and development work was conducted by NASA in fiscal years 1989 and 1990. The Committee strongly believes that the NTTC is essential for the proper transfer of federally developed technologies to the private sector. In addition, it will help stimulate economic development throughout the Nation as well as enhance the ability of the United States to compete in the global marketplace. The Committee anticipates that NASA's development with the Center will continue over the next 5 fiscal years.

This program is expected to extend over a five-year period, at $4-5 million per year, including NASA overhead for program management and associated costs. Will this estimate of $4-5 million per year be enough to implement this vitally needed program? Please provide for the record NASA's estimated expenditures for this program for FY 1992, 1993, and 1994. What steps is NASA taking to assure that the program provides a useful product for the expenditure of taxpayer funds? How will NASA assure that the program becomes self-sufficient when Federal funding ceases? Is there a mechanism established by the grantee and by NASA to help assure that the products produced by the NTTC will be useful to industry? How are outside experts being used to help NASA and the grantee deal with these complex matters?

Answer 2: The current runout estimate for this program through completion in FY 1995 is $28.4 million, with peak funding occurring in FY 1992 at $9.0 million. We believe this amount is sufficient to carry out the objectives encompassed in the NASA-WJC Cooperative Agreement signed on April 24, 1991. The following budget estimates break down this total for years FY 1992 through FY 1995:

FY 1992	$9.0 million
FY 1993	4.4 million
FY 1994	3.4 million
FY 1995	2.6 million

NASA and WJC have been collaborating in a "products" plan that would identify specific market "niches" for such a national center, and which would complement or supplement the technology transfer activities already in place within the various federal and state agencies and the private sector. This is particularly the case in complementing the Regional Technology Transfer Centers (RTTC) currently being restructured by NASA which will provide the regional "spokes" to the NTTC "hub." Among these "products" or services are:

- National training center for government and industry executives and practitioners in the area of technology transfer.

- Industry-wide services such as the analysis of technology "voids" which may prevent that industry from being competitive.

- Formulation and maintenance of a total U.S. technology data base. This service would be geared principally to other government agencies which do not now have the structure to establish these data bases.

- National technology transfer referral service for technology providers and users, which would serve as an industry-wide "wholesaler" for the RTTC's "retail" interfaces with individual users.

In addition to specific revenue-generating activities, there are other critical national roles for NTTC that will serve to promote Federal technology transfer and the competitiveness of U.S. industry. These include: 1) addressing technology transfer issues and needs that cut across all federal agencies, and recommending solutions or national policies, and, 2) promoting the advantages of technology applications to the products and services of small- and medium-sized businesses and for the traditionally nontechnology-based industries throughout the country. Overall, it is expected that as the reputation of NTTC grows, they will draw sufficient attention and provide the type of value-added services that will ensure a self-sustaining revenue stream.

NTTC development has been undertaken in such a way as to ensure a quality program. There has been a constant stream of outside "experts" consulted in the various stages of NTTC's definition and development. The specific development of certain critical components like CIS will be likely contracted. Furthermore, several boards and steering groups will be formed to ensure that NTTC will have expert advice each step of the way.

Classroom of the Future

Question 3: During processing of the FY 1990 VA, HUD, and Independent Agencies Appropriation bill, the Committee concurred in the House allowance and provided $1.4 million over the budget request to establish and equip a computer software program at Wheeling Jesuit College, which will develop software for space science education at that College which will be used there and at other sites throughout the Nation. This software center will be one component of many to be developed by NASA under the broader context of a "Classroom of the Future."

For FY 1993 and 1994, what will be the budget requirements for this program? How much is required in FY 1992? How much is available for this program in FY 1992? May I have your assurance that NASA will continue to work closely with Wheeling Jesuit College throughout the implementation of the program? What steps are being taken by NASA to assure that the program provides a useful product for the expenditure of taxpayer funds? How will NASA assure that the program becomes self-sufficient when Federal funding ceases?

Answer 3: NASA plans to continue to work closely with Wheeling Jesuit College through the implementation of its Classroom of the Future as it has done since its inception.

In close consultation with NASA, Wheeling Jesuit College personnel are creating a capability to develop educational software designed to meet the needs of students and teachers.

This capability encompasses both the equipment and personnel necessary for software development projects. NASA's Educational Affairs Division is utilizing its experience in education and in technology development to guide Wheeling Jesuit College personnel in the selection and implementation of technology-based products.

NASA will also utilize aerospace education specialists to field test and conduct formative evaluations of the software developed at Wheeling Jesuit College. The results of the formative evaluations will be utilized to revise and improve the product developed. These specialists are former elementary and secondary school teachers who conduct aerospace education activities nationwide under contract with the NASA Education Division. They, along with other NASA educational personnel, are therefore uniquely prepared to provide the required support to Wheeling Jesuit College and to ensure that the products developed are useful to educators. We expect the Classroom of the Future to become a model for replication in other educational settings.

During FY 1991, $940,000 has been provided to Wheeling Jesuit College for continuation of the development of the Classroom of the Future concept and a software development capability. In addition, $5M has been provide for the purpose of construction of the Classroom of the Future facility.

Following our three year plan, in FY 1992 NASA plans to work with Wheeling Jesuit College to implement the educational software development capability. This effort is underway and we are working closely with Wheeling Jesuit College and the Challenger Center for Space Science Education to identify and develop and complete this initial project in FY 1992. Specific funding levels for FY 1992 have not been determined as of this time.

It is NASA's desire to develop an educational institutional capability at Wheeling Jesuit College to support NASA's Educational Technology efforts. Therefore, the goals and objectives of Wheeling Jesuit College efforts in this important educational area are consistent with NASA's educational plans in the future. It is NASA's intent to be heavily involved in all aspects of the development of the Classroom of the Future.

AdaNET Program in West Virginia

Question 4: The AdaNET program is designed to provide for the transfer of software to the commercial sector in order to stimulate the reuse of software applications into manufacturing, automation, and robotics sectors. This program also helps to avoid duplication of software and program efforts by Government and industry. The FY 1991 budget includes $4 million for the AdaNET Program, an increase of $1 million over the FY 1990 level.

Last year, the Senate Report accompanying the FY 1991 VA, HUD, and Independent Agencies Appropriation bill included the following language at my request:

The Committee recommends the following changes:

+ $1,000,000 to the $3,000,000 requested for the AdaNET program. The AdaNET program will facilitate the transfer of Ada software to the commercial sector and will stimulate its application in manufacturing, automation, and robotics activities. In addition, it will eliminate the duplication of software and program efforts by Government and industry on this project. The Committee expects NASA to provide it with a report on its current review of the AdaNET program and the agency's strategic plan for expanding the application and use of the Ada software program.

I am advised that this report is due to the Committee on May 15, 1991.

In response to one of my questions at last year's hearing, NASA indicated:

This next phase is expected to require 24-30 months of effort (i.e., through FY 1992). NASA funding for the AdaNET Program is $3.0 million in FY 1990 and $3.0 million has been included in the FY 1991 budget request. When this phase is completed, results of AdaNET research and development will be presented to program sponsors for analysis and decisions about future operation.

For the record, please provide the current status of the next phase of this project and a list of the significant milestone events leading to the completion of this phase. What will be the funding levels during FY 1991 through 1995? What steps are being taken by NASA to assure that the program provides a useful product for the expenditure of taxpayer funds? How will NASA assure that the program becomes self-sufficient when Federal funding ceases?

Answer 4: The report on NASA's view of the AdaNET Program and the Agency's plans for expanding application of Ada software was submitted to the Committee on May 15, 1991.

AdaNET continues to develop as a national software engineering technology transfer program led by NASA in cooperation with organizations from government, industry, and academia. The Program has made significant progress towards its goal of creating a national facility in West Virginia to increase U.S. productivity, economic growth and competitiveness through development of a life-cycle repository for software engineering products, processes, interfaces, and related information services.

During Phase I, 1988-1990, AdaNET established in West Virginia a basic foundation for products and services delivery consisting in a usable prototype of an Ada software engineering repository with related bibliographic information and communications services; a core group of AdaNET users in industry, academe, and government; and a collection of studies, models, methodologies, tools, and component representations developed to support software reuse. Many users have commented favorably on the high value of repository holdings, along with the frequent assertion that these holdings are better than any other publicly accessible collection in the United States. AdaNET Phase I culminated in a decision by NASA and the West Virginia principals to initiate a 5-year program to incrementally evolve AdaNET into a repository encompassing the full software engineering life cycle.

Phase II Strategic Plan

The Phase II 5-year program plan (1991-1995) and its parent concept document are under final review by NASA, DOD, industry, and academic software engineering and technology transfer experts. Phase II is directed and focused primarily toward a rapid and staged upgrade of the AdaNET West Virginia operational facility to include a state-of-the-art online software engineering repository and related information service, both based on utilization of an open architecture information management system developed at NASA's Johnson Space Center. The evolution of this West Virginia repository is planned to increase its capability to fully represent life-cycle components. In the process, the facility is expected to build a stabilized and motivated user base through continual improvement of AdaNET products, services, and capabilities. Critically important adjuncts include establishment of NASA-wide and interagency networks to acquire and utilize AdaNET components; research in repository-based software engineering; and quality management, including performance evaluation, cost/benefit measurement, and market analysis. Throughout Phase II, AdaNET will continue to amplify its efforts to establish complementarity with related government organizations and technology programs in order to encourage appropriate operational synergisms and to ensure efficient delivery and utilization of software engineering resources.

Major AdaNET Phase I milestones include the following:

Upgrade of AdaNET operational prototype with an open systems architecture and public domain interface possessing state-of-the-art capabilities for AdaNET products/services deliveries (including manufacturing/robotics software components, value-added software reuse information packages, Ada life-cycle tools, and training/educational aids).

Integration of NASA technology transfer networks to benefit AdaNET software engineering component/asset acquisition and utilization.

Enhancement/integration of interrepository/interagency networks for communications and component/asset acquisitions and utilization.

Transfer of software engineering technology and information to the private sector, academia, and government.

Implementation of full software engineering life-cycle product/service support capabilities in the West Virginia operational facility.

Establishment of legal/policy frameworks for commercial operations.

Expansion/refinement of capabilities to satisfy industry and government customer requirements, including intensified marketing/outreach to encourage progress towards self-support.

Funding Requirements

NASA management is reviewing AdaNET funding requirements for FY 1992-FY 1995. Currently planned funding levels are as follows:

FY 1991	$4.0 million
FY 1992	2.0 million
FY 1993	2.1 million
FY 1994	2.2 million
FY 1995	2.3 million

Positive Return of Taxpayer Investment and Self-Sufficiency

AdaNET program management has implemented and is monitoring/refining criteria to help assure that the AdaNET Program delivers maximally useful products and services in return for taxpayer investments, and that AdaNET will be optimally capable of delivering products and services which are competitive and could permit self-sufficient operation of the West Virginia AdaNET facility. Criteria aimed at optimization of return on investment and enhancing progress towards AdaNET self-sufficiency include the following:

Technology transfer to private and public sectors -- specifically technology that facilitates cost-effective reuse of software components.

"First choice" utilization by professional software engineering community, specifically those professionals who are involved with software reuse.

Product and service focus -- products and services offered by AdaNET that directly support program objectives and track closely with customer requirements.

Software engineering component and asset acquisitions.

Product/service investment impact. That is, for each product/service, the commercial and attributed values of outputs are compared to their total cost.

Development of a software technology/business base in West Virginia.

Progress toward self-sufficiency.

Integration and/or complementarity with deployed NASA and other appropriate government systems.

Utilization by, and cooperative efforts with, all NASA Centers and other government agencies.

High quality Phase II performance should result in AdaNET demonstration of tangible returns on investments through cases of software engineering technology transfer to the private and public sectors. This should enable AdaNET to enter into revenue-producing service relationships with external organizations. Program-wide emphasis on efficient and competitive performance, extensions of the AdaNET user community through market development and operational enhancements, and increased software engineering component/asset quality and quantity should optimize AdaNET's capability to move toward the ultimate goal of self-sufficiency, through fees from both private and public sector users.

QUESTIONS SUBMITTED BY SENATOR HATFIELD

Question 1: Adm. Truly, the common public perception of NASA is that of the government's branch to build space shuttles and conduct space exploration and research. In fact, this is only a portion of what NASA does and has accomplished. NASA's achievements in the fields of medical instrumentation, miniaturization of electronic circuits, global climate change, advancements in avionics and aerodynamic research are but a few of the so called "spin-offs." While I understand the difficulty of disseminating these other achievements to the public, it would be useful to discuss NASA's recent "spin-offs" for the record. Could you briefly describe some of NASA's more notable "spin-offs," some recent accomplishments and major contributions to medical research?

Answer 1: NASA maintains an active Technology Utilization Program to transfer the benefits of space-developed technologies to the U.S. commercial economy. To date, there have been over 30,000 spin-off applications from NASA's space program. In 1989, a study conducted by the Chapman Research Group, of Littleton, Colorado, evaluated the benefits derived from 259 easily quantifiable cases of NASA spin-off technology and found that the program resulted in sales of $21.3 billion, savings of $315 million and approximately $356 million in corporate income taxes, and created or saved over 352,000 jobs.

In April 1990, the U.S. Space Foundation honored two technology spin-offs that resulted from earlier NASA programs: heat pipe technology, which has applications in the protection of the Alaska Pipe Line and other energy conservation devices, and safety grooving, which is used to improve the safety of commercial runways, interstate highway curves and overpasses, pedestrian walkways, and many other slippery-when-wet surface problems.

Some notable examples of recent projects in medical technology include a Programmable Implantable Medication System (PIMS), which delivers time-released amounts of insulin to the body over an extended period; the micro-climate personal cooling system, worn by people who work in environments where temperature elevation can threaten fatigue and collapse or by individuals lacking normal bodily perspiration functions; contamination control garments, used by hospitals, pharmaceutical and medical equipment manufacturers, and other industrial facilities where extreme cleanliness is important; a low-temperature eximer laser technology, which is used in certain angioplasty procedures; the advanced state-of-the-art implantable pacemaker that closely matches the rhythm of the heart.

Question 2: In FY 1990, the Committee provided $1 million for the expansion of NASA's Aerospace Education Services Program, commonly known as the "Spacemobile" program. This program remains one of NASA's most popular and successful methods of bringing state-of-the-art space experiments to local communities, thus stimulating student interest in science and technology.

Could you please update the Committee on the status of this program and discuss how you see this program developing in the future?

Answer 2: The Aerospace Education Services Program (AESP) remains the NASA Educational Affairs Division's premier outreach program. With additional funding we were able to expand and enhance the program during both FY 1990 and 1991. Five aerospace education specialists were added to the program in FY 1990 and four during FY 1991. In addition, two staff members were added to the Oklahoma State University campus staff in FY 1991 to better provide curriculum development and program evaluation capability.

The remainder of the additional funds was used for replacement and refurbishment of vans and equipment and for the enhancement of salaries and per diem for the aerospace education specialists.

It is our hope that over the next five years this program can be further expanded to provide at least one "Spacemobile" for each state in the nation.

Question 3: One of the most impressive aspects of the space station is the potential for innovations and advancements in the area of medical research. For example, it might be possible to develop at zero gravity a new insulin for diabetes treatment that could substantially reduce or eliminate the number of injections required for treatment. Do these possibilities still exist and, if so, could you briefly discuss what they are and how they have changed to accommodate the redesign on the space station?

Answer 3: In 1985, scientific investigations into the encapsulation of living cells for the treatment of diabetes were conducted aboard Spacelab-3. It may be possible to cure the diabetic through injections of encapsulated clusters of cells, called islets, which are covered by protective membranes or microcapsules that would allow insulin to be secreted, yet prevent antibodies from rejecting the islets. Promising results from zero-gravity research provided the underlying foundation for continued ground-based analysis.

NASA's Center for Macromolecular Crystallography at the University of Alabama, in Birmingham, Alabama, has also conducted experiments on the enzyme aldose reductase, which has been implicated in the development of diabetic complications because of its ability to catalyze the reduction of glucose to sorbitol. The results of aldose reductase experiments, which flew on flight STS-32 in January 1990, are currently being analyzed by the Center.

Question 4: In recent years, an increasing number of NASA shuttle missions have been conducted for the Department of Defense. While I understand that NASA is compensated for these missions, does this compensation cover all costs incurred including preparing the shuttle for its next mission?

Answer 4: In 1983 the National Aeronautics and Space Administration and the United States Air Force (USAF) entered into a Memorandum of Agreement (MOA) for use of the Space Shuttle, consistent with their respective roles as partners in its development and operation. The purpose of the MOA was to establish a quid pro quo arrangement between the agencies through which Space Shuttle launch facilities and associated support services that were the responsibility of one Agency would be provided to the other agency at no cost.

This MOA was comprehensive, involving launch and related services for the Space Shuttle at Kennedy Space Center and at Vandenberg Air Force Base. Under the terms of this agreement, NASA was reimbursed by the Department of Defense (DoD) for materials and services associated with a DoD Space Shuttle launch. Materials include expendable flight hardware and replacement parts. Reimbursable services include various support services associated with the delivery of the Space Shuttle flight hardware, its refurbishment and its preparation for launch for that DoD mission. (DoD does not reimburse NASA for cost associated with preparation of the Space Shuttle for its next flight following the DoD flight.) Among the services exchanged on a quid pro quo basis are: NASA Network Support for DoD launches (including the Tracking and Data Relay Satellite System); and DoD Range Support for NASA launches. (The USAF Range Safety Organization is a member of the Space Shuttle Mission Management Team with full participation in launch readiness decisions.)

In compliance with the 1983 MOA, DoD transferred $628.2 million to NASA in fiscal years 1984, 1985 and 1986. In return NASA was to provide the Air Force with nine Space Shuttle flights, of which six have been flown thus far (STS missions 27, 28, 33, 36, 38 and 39).

In October 1987, under the terms of a follow-on agreement, NASA agreed to honor the earlier commitment for the nine flights already paid for, with a new quid pro quo arrangement for any additional DoD Space Shuttle flights and the Air Force agreed to provide Expendable Launch Vehicle services for the Delta and Titan programs under a similar favorable pricing arrangement.

The October 1987 agreement expires at the end of fiscal year 1991. Negotiation of a follow-on agreement for launch services is underway.

Question 5: NASA was established as a "civilian" space Agency, yet more and more missions appear to be for the Department of Defense. Obviously, this has an impact on scientific missions that have been in preparation for several years. Could you briefly discuss how scientific missions have been impacted and setback by increased Defense missions?

Answer 5: The number of Department of Defense missions planned for the Space Shuttle has not increased but, rather, has decreased over the years since the Challenger accident and the interruption in Shuttle launches which followed. Of the nine DoD flights planned after the Challenger accident, six have been flown. One flight has been canceled, and there are only two remaining planned DoD flights on the Space Shuttle.

Several factors, in addition to the interruption in Shuttle launches, contributed to the DoD's increased use of the Titan IV and other expendable launch vehicles (ELV's) for payloads which had been manifested on the Shuttle. These factors included cancellation of the Centaur upper stage for Shuttle payloads and termination of the plan to launch the Shuttle from the West Coast launch site at Vandenberg Air Force Base. The DoD need for the high performance attainable with the Centaur,and the higher inclinations attainable from Vandenberg, established firm DoD requirements for the increased use of ELV's in a mixed fleet manifest.

Even though many DoD Shuttle payloads have had a National Security priority associated with their launch scheduling, the Department of Defense has not invoked that priority in conjunction with any of their Space Shuttle launches. Instead, the DoD has consistently supported a balance between the scheduling of science missions, and the scheduling of their national security missions on the Shuttle manifest. In scheduling negotiations between the DoD and NASA, for example, the DoD has always respected the firmness and the criticality of the launch date requirements for the NASA planetary missions, with the result that these planetary missions; Magellan (STS-30), Galileo (STS-34) and Ulysses (STS-41), have all been launched as planned by NASA without any adverse impact from conflicting DoD priorities.

In addition to their support of NASA's planetary missions, the Department of Defense has been fully supportive of NASA's space science objectives in general. On numerous occasions during the past two years, when technical problems caused interruptions in Shuttle launches, DoD agreed to exchange launch dates with NASA science missions, thereby allowing the NASA science missions to be launched earlier than otherwise had become possible. Specifically the DoD agreed to such an exchange of launch dates between the Hubble Space Telescope and DoD mission STS-36 and, most recently, between UARS and DoD mission STS-44 resulting, in both cases, in the launch of the NASA science missions several months ahead of the DoD missions.

SUBCOMMITTEE RECESS

Senator MIKULSKI. This subcommittee stands in recess until May 15, when we will review the fiscal year 1992 request for the Points of Light Foundation, and we will be inquiring as to the status of the implementation of the national service legislation.

This subcommittee stands in recess until May 15.

[Whereupon, at 10:55 a.m., Wednesday, May 8, the subcommittee was recessed, to reconvene at 1:30 p.m., Wednesday, May 15.]

DEPARTMENTS OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT AND INDEPENDENT AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1992

WEDNESDAY, MAY 15, 1991

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 1:40 p.m., in room SD–138, Dirksen Senate Office Building, Hon. Barbara Mikulski (chair) presiding.

Present: Senator Mikulski.

POINTS OF LIGHT FOUNDATION

STATEMENT OF RICHARD F. SCHUBERT, PRESIDENT AND CHIEF EXECUTIVE OFFICER

ACCOMPANIED BY DAVID RACINE, EXECUTIVE VICE PRESIDENT

OPENING STATEMENT OF SENATOR MIKULSKI

Senator MIKULSKI. The subcommittee will come to order.

Today we will discuss two important aspects of the bipartisan effort to promote national and community service.

First, the fiscal year 1992 budget request for the Points of Light Foundation, and second, the status of the administration's efforts to implement the national service legislation passed on a bipartisan basis by Congress last year.

We welcome today as our witness Mr. Richard Schubert, President of the Points of Light Foundation, in his first appearance before this subcommittee.

Dick Schubert is no stranger to this Senator. As the former head of Bethlehem Steel Corp., one of Maryland's largest employers, I can personally attest to Mr. Schubert's commitment to community service and volunteerism.

I know that when Mr. Schubert was at Bethlehem Steel he believed that the best social program was a job. Since he moved out of that CEO status, he has worked to make sure that other people have opportunities. So we welcome him.

I want the record to show that I am a strong supporter of the President's concept of 1,000 points of light, as attested to by the willingness of this subcommittee to provide the fully authorized amount for the Foundation in its fiscal 1991 appropriation. We intend to continue that commitment in fiscal year 1992. This is the first of many conversations, and we hope that we can work with the President's people when advocating national service.

At the same time, however, I must express deep concern about the administration's foot-dragging in implementing the broader national service legislation passed by the Congress last year. I doubt very much that the President is aware of these delays and the nature of these delays. I believe that he would be disturbed, as I am, if this were brought to his attention. I intend to do that.

Last year, the national service legislation called for the appointment of a 21-member nonpartisan Commission to be in place by May 16, which is tomorrow. With just 10 hours to go before the deadline, there have been no nominations forwarded to the Senate, and none, frankly, are on the horizon.

In addition, a number of potential nominees recommended by this Senator who are currently employed and who have distinguished records of public service have received tart letters of rejection from the President's advisers, who inferred that these individuals were in some type of job hunt.

As a result of this emerging pattern, many are beginning to suggest that the President's advisers have developed a political litmus test for the membership on the Commission. The question seems to imply that, as they interview these people, that if you did not help get the President elected, you will not be able to help him govern.

While that might hold true for Cabinet posts, and most appropriately so, and that is the normal kind of political appointments a President makes, that is not what national service is all about.

We hope to nominate for the President's consideration, or suggest to the President, people who have served in the community who are experts in either the delivery of nonprofit services or are experts in the management of nonprofit services, and therefore, like a community service national guard, they serve on a nonpartisan basis.

Well, we are going to talk a little bit more about that during the hearing. I know that that was not the President's intention, and I hope that as a result of today's hearing we can get the Commission back on track.

We are going to start our conversation today with discussing the appropriation requested for the Points of Light Foundation.

Mr. Schubert, we know that you are not a party to delaying the implementation of national service and, in fact, we appreciate everything you have done to help move the process, and also for the leadership and practical experience that you bring to the Points of Light Foundation.

Mr. Schubert, I am looking forward to your testimony. Know that I just left a little luncheon that they had for the Queen of England. We welcome Her Majesty, and I said to a couple of the policemen out there—Maryland people—I said the Queen got there because of who her mother and father are. You and I got there because of who our mother and father are, and we have got to make sure that for people who have no mother and father, they get where they have got to go, too, and I know that that is one of the focuses of the Points of Light.

So let us hear your ideas.

PREPARED STATEMENTS

Before you proceed with your summary statement, Mr. Schubert, subcommittee staff has received a prepared statement from Senator D'Amato, which I would like to insert in the record at this point, together with my own.

[The statements follow:]

STATEMENT OF SENATOR MIKULSKI

The Subcommittee will come to order. Today we meet to discuss two important aspects of the bi-partisan effort to promote national and community volunteer service: first, the fiscal year 1992 budget request for the Points of Light Foundation; and second, and perhaps more importantly, the status of the Administration's efforts to implement national service legislation.

We welcome as our witness today, Mr. Richard Schubert, President of the Points of Light Foundation, in his first appearance before the Subcommittee.

Dick Schubert is no stranger to this Senator. As the former head of the Bethlehem Steel Corporation, one of Maryland's largest employers, I can personally attest to Mr. Schubert's commitment to community service and volunteerism.

I am a strong supporter of the President's concept of a "thousand points of light," as attested to by the willingness of this Subcommittee to provide the fully authorized amount for the Foundation in its fiscal year 1991 appropriations bill. We hope to continue that commitment in fiscal year 1992, and see today's hearing as the first of many conversations on this very important subject.

At the same time, however, I am deeply concerned about the Administration's foot-dragging in implementing the broader national service legislation passed by the Congress last year. doubt very much that the President is personally aware of these delays. If he was, however, I believe he would be as disturbed as I am.

Last year's national service legislation called for the appointment of a 21-member, non-partisan, commission to be in place by May 16, which is tomorrow. With just over 10 hours to go before reaching that deadline, there have been no nominations forwarded to the Senate, and none frankly, are on the horizon.

In addition, a number of potential nominees recommended by this Senator, who are currently employed but have distinguished records of public service, have received "tart", letters of rejection from the President's advisors—who infer that these individuals are on some prospective job hunt.

As a result of this emerging pattern, many are beginning to suggest that the President's advisors have developed a political litmus test for membership on the Commission: if you didn't help get the President elected, you will not be able to help him govern. While that might hold true for Cabinet posts, and the normal kind of political appointments a President makes, that is not what national service is all about.

The carefully crafted compromise which the Congress and the White House agreed upon last year was unique in that it called for a non-partisan approach to encouraging national and community service. Now, only six months later, we face the risk that members of the White House staff might try to "snuff out" these "points of light" by placing partisanship before volunteerism.

I know that this was not the President's intention, and hope that as a result of today's hearing we can get the Commission back on track, and appointed as soon as possible.

Mr. Schubert, we know that you are not a party to delaying the implementation of the national service legislation. In fact, we appreciate everything you've done to help move the process as far as it has come. So if you would, please begin your testimony.

STATEMENT OF SENATOR D'AMATO

Madam Chair, I am pleased to join you this afternoon as the subcommittee hears testimony from Richard F. Schubert, President and CEO of the Points of Light Foundation. We extend a particular welcome to Mr. Schubert today, since this is his first appearance before a Congressional subcommittee on behalf of the Foundation.

The mission of the Foundation, is succinctly stated in Mr. Schubert's testimony: "to make community service directed at social problems central to the life of every American." Congress affirmed this worthy goal by passing the National and Community Service Act last year, and we on the Appropriations Committee have affirmed it by appropriating $5 million to the Points of Light Foundation for 1991.

The Foundation seems to be pursuing its mission with admirable zeal. In less than one year, it has raised over $1 million from private sources; it has initiated a national advertising campaign urging Americans to get more involved in community service; and it has begun to develop an outreach network designed to engage people in service through the groups and organizations to which they already belong.

The Foundation is seeking an appropriation of $7.5 million in fiscal year 1992, to be matched with $1.9 million in private donations. I am encouraged that the Foundation has already received pledges for more than half of this $1.9 million. The Foundation has clearly demonstrated a strong commitment to community service in 1991, and I look forward to hearing more about its plans for the future.

Thank you, Madam Chair.

SUMMARY STATEMENT

Mr. SCHUBERT. Thank you, Senator. It is a distinct pleasure and personal privilege to appear before you as the President and the CEO of the Points of Light Foundation to discuss our current and future plans, and with me, Senator, is David Racine, who is our Executive Vice President. He has been a part of the Foundation from its inception and will be a valuable adjunct in respect of certain budget detail and also if there is any historical perspective that is required that preceded my arrival on the scene.

This is, as you indicate, an unusual occasion for us. It is the first time we have had the privilege of presenting testimony to Congress, though I personally have been involved in the past when I worked in the Labor Department, appearing before this committee.

We think we have a compelling story to tell, a story of mobilizing the American public for direct and consequential community service and we do welcome this.

Let me begin by thanking you both personally and institutionally, and I know that you personally have been involved in making this moment possible. Your leadership at a very critical time was very instrumental in the inception of the idea in legislation and I know that you have also been supportive in a variety of ways since the legislation was passed.

The support of the Congress has enabled us, in our view, to get off on the right foot, to do so dynamically, making us what we believe to be an increasingly attractive investment for private contributions on which our long-term future clearly depends.

NATIONAL CELEBRATION OF SERVICE

As you recall, Senator, we sponsored a Celebration of Service—national celebration of service—which ran from April 15 through the 26th. We are indebted to you, and many others, for joining with us in this celebration to acknowledge the outstanding efforts that people are making through community service to turn the tide of social distress in each community across the country.

By shining the spotlight, as we attempted to do during the celebration, on those who are making a difference—the change agents, the people who are making things happen—we are confident that more Americans will be inspired to rise to the challenge.

By way of background, for the record primarily, Senator, because this is all well-known to you, let me say a little bit about the Points of Light Foundation. It was incorporated last May—private, nonprofit.

Our mission is very simple, very straightforward. It is to make community service directed at social problems central to the life of every American. We are led now by a 24-member board of outstanding people, leaders from business, education, nonprofit work, youth service.

I would also add that it is very consciously nonpartisan, and the Democratic voters on the board are very proud of their own political persuasion and very, very sensitive and concerned that we maintain a nonpartisan position. I personally will assure you of my own commitment in that respect, because the credibility of this institution will be the base for contributions and survival in making a significant contribution to our way of life in the future.

As you know very well, the National and Community Service Act, enacted last fall, authorized the President to designate the Foundation to receive Federal funds in the amount of $5 million for the current fiscal year, $7.5 for fiscal 1992, and $10 million for fiscal 1993. During the second and third years we are required to satisfy a 25-percent matching requirement. Congress has appropriated the $5 million and we expect to expend or obligate it before October 1. We are here to offer our justification in respect of the $7.5 million for the second year which the administration has requested on our behalf.

Since we have already submitted a detailed justification and there is a copy attached to my testimony, I would like to limit my formal remarks to a summary of what we have done to date and what we intend to do in the coming year.

MISSION

As I have already noted, our mission is to draw ever more Americans into meaningful service aimed at social problems, the kind of problems that tear us apart as a nation, like illiteracy and homelessness and neglect and drug abuse, other forms of social breakdown. It is our belief that unless citizens are more deeply engaged in dealing with these problems in their communities, the problems will not be solved or substantially alleviated.

To fulfill our basic mission, we have devised and are acting on a pretty straightforward strategy. The game plan has really three levels: to move citizens from an elevated awareness of the benefits of serving others, to participating themselves, and then making an enduring commitment.

In the Foundation's first year of operation we have primarily concerned ourselves and concentrated on making more people more aware of the benefits that can accrue to themselves and their community when they get involved in helping others. Working within a budget of approximately $6 million—$5 million of Federal funds and $1 million of private funds—we have invested in the development of a full-scale media campaign, an outreach to particularly critical audiences such as businesses and major nonprofit organizations, and innovative ways of nationally recognizing outstanding achievements in community service such as that 12-day, 18-city celebration of service I mentioned a moment ago.

These steps have all been taken for the purpose of giving community service a higher profile in our culture, and while I cannot tell you that every American now knows the true meaning of the phrase "points of light," I think we are moving in that direction.

During the Celebration of Service we put the message of service in front of tens of millions and we believe that there will be a significant increase in people who actually get the message week by week in the immediate period ahead.

In the coming fiscal year, our plan is to continue consciousness raising while simultaneously working more aggressively to generate greater opportunities for people to serve in their communities. It is our conviction that raising consciousness is a good thing, but it is not enough. People whose awareness has been increased need to know specifically where and how they can help.

MEDIA CAMPAIGN

While our media campaign includes the means of linking people with opportunity, more targeted efforts are required, though. Consequently, during 1992—and this is part of our budget justification—we intend to work intensively with particular groups such as corporations, schools, nonprofit agencies, service organizations, churches, to make their members more aware of opportunities and needs.

Toward this end, we hope to embark on a major effort aimed at stimulating the replication, or in some cases even invention, of highly successful and creative community service initiatives. Work in this vein has already begun this year through initial outreach to large corporations, starting with the Fortune 200, also leading nonprofit institutions and schools at all levels, and selected communities on a pilot basis.

It has also been carried out through the launching of our Points of Light initiative program. An initiative is a creative—we hope—nationwide project that is operated by another organization and fulfills some part of our mission. We have had a number of organizations approach us who wish to have some form of affiliation and the initiative effort is one significant way of meeting that need with regard to the most significant projects that come to our attention.

Next year, we will put an even greater effort into identifying the most compelling, workable ideas for community service and brokering their replication or adoption, and I have to say on a personal basis that this is one of the most challenging, exciting things that I look forward to.

To move the Foundation fully into the second phase of its strategy—that is, fostering increased opportunities for service—we are planning a fiscal 1992 budget of roughly $9.4 million. Of this amount, $7.5 million would be Federal support and approximately $1.9 million would come from private donations, thereby satisfying the matching requirement.

PRIVATE CONTRIBUTIONS

I should note that although we are not obligated by the Federal law to match the current year, we have nevertheless raised private contributions of over $1 million to help defray this year's cost. Private funds of upward of another $1 million have been raised or pledged for fiscal 1992. We are confident that we will secure the remaining $900,000 or so that are needed. In fact, Senator, our aspirations are considerably higher in respect of private contributions to enhance our activities.

Let me conclude by saying that I believe that the Points of Light Foundation has come into being at the right time in our history. I have had the opportunity over the last few months to sense a growing awareness among the American people that too many lives are being ruined, just as you indicate in your opening remarks. There are too many people who need the kind of support that we were fortunate enough to have from parents who cared—cared what was happening to us. Too many futures are being shortened by the decay that is spreading not only in our urban communities, but increasingly in the suburban areas of our country.

While the Government's role is critical in responding to this dilemma, it cannot alone fill the void left by disintegrating communities and lives. That is something that people acting within their own communities, by and with their own distinctive competencies, must and can do.

The wonderful thing, and the thing that exhilarates me on a continuing basis, is that those who engage in that kind of service, difficult although it might be for them and to them, find their own lives greatly enriched, and that really is the base of the tag line in our community service ads. That is, that people who do something good will feel something very real in their lives.

I feel privileged to be involved in this effort. I have had the good fortune of spending time in the private sector, as you know, and in Government, and then the wonderful institution of the Red Cross. I believe in a very unique way that all of that is the prologue to the opportunity that is with us today in the Points of Light Foundation, and I thank you again for your personal support.

[The statement follows:]

STATEMENT OF RICHARD F. SCHUBERT

It is my pleasure to appear before you today as chief executive officer and president of The Points of Light Foundation to discuss our current and future plans. This is an unusual occasion for us: it's the first time we've presented testimony to Congress. I think we have a compelling story to tell—the story of mobilizing the American people for direct and consequential community service. And I welcome this chance to tell it.

Let me begin by thanking you. The financial and political support we have received from Congress so far has been both significant and indispensable. It has enabled us to start off on the right foot, and to do so dynamically, making us an increasingly attractive investment for the private contributions on which the Foundation's long-term future depends.

Recently, several members of Congress, including you madame Chairwoman, participated in our national Celebration of Service, which ran from April 15th through the 26th. To you we are deeply indebted for joining with us to acknowledge the outstanding efforts that people are making through voluntary service to turn the tide of social distress in their communities. By shining the spotlight, as we did during this Celebration, on those who are making a difference, we are confident that more Americans will be inspired to rise to the challenge.

By way of background, let me say a little about what the Points of Light Foundation is. It was incorporated last May as a private, nonprofit organization. Our mission is to make community service directed at social problems central to the life of every American. We are led by a 24-member board of directors comprised of leaders from business, education, nonprofit work, and youth service. I would also add that the board is a consciously nonpartisan one. Our board members have widely varying political backgrounds but have at least one thing in common: their strong belief in the need for community service.

As you know, the National and Community Service Act, enacted last Fall, authorized the President to designate the Foundation to receive federal funds in the amount of $5 million for fiscal year 1991, $7.5 million for fiscal year 1992, and $10 million for fiscal year 1993. During the second and third years of this authorization, we are required to satisfy a 25 percent matching requirement. Congress has appropriated the $5 million to us for the current year (all of which we expect to expend or obligate before October 1st), and I am here to offer our justification of the $7.5 million the Administration has requested on our behalf for the coming year.

Since we have already submitted a detailed budget justification, another copy of which is attached to this testimony, I would like to limit my formal remarks to a summary of what we have done to date and what we intend to do in the coming year.

As I've already noted, our mission is to draw ever more Americans into meaningful service aimed at social problems such as illiteracy, homelessness, neglect, drug abuse, and other forms of social breakdown. It is our belief that unless citizens are more deeply engaged in dealing with these problems in their communities, the problems cannot be solved or substantially alleviated. To fulfill our basic mission, we have devised and are acting on a straightforward strategy. This gameplan seeks to move citizens from an elevated awareness of the benefits of serving others, to participating in voluntary service, to making an enduring commitment to service.

In the Foundation's first year of operation, we have primarily concentrated on making people more aware of the benefits that accrue to themselves and their community when they get involved in helping others. Working within a budget of approximately $6 million—$5 million of it federal funds, we have invested in the development of a full-scale media campaign, outreach to particularly critical audiences such as businesses and major nonprofit organizations, and different ways of nationally recognizing outstanding achievements in community service such as the Celebration of Service I mentioned a moment ago. These steps have all been taken for the purpose of giving service a higher profile in American culture. And while I cannot tell you here today that every American now knows the true meaning of the phrase "points of light," I think we are well on our way. During the Celebration of Service, we put the message of service in front of tens of millions of people. We have every reason to believe that the numbers of people who actually "get" the message will rise week by week in the period ahead.

In the coming fiscal year, our plan is to continue raising awareness while simultaneously working more aggressively to generate greater opportunities for people to serve in their communities. It is our firm conviction that raising consciousness is a good thing but not enough. People whose awareness has been increased need to know specifically where and how they can help. While our media campaign includes the means of linking people with opportunities, more targeted efforts are needed. Consequently, during 1992 we intend to work intensively with particular groups such as corporations, schools, and nonprofit agencies to engage more of their members and participants in community problem-solving.

Toward this end, we hope to embark on a major effort aimed at stimulating the replication or invention of highly successful and creative community service initiatives. Work in this vein has already begun this year through initial outreach to large corporations, leading nonprofit institutions, schools at all levels, and selected communities. It has also been carried out through the launching of our Points of Light Initiatives program. An Initiative is a creative, nationwide project that is operated by another organization and that fulfills some part of the Foundation's mission. We have had a number of organizations approach us wishing for some form of affiliation; the Initiatives program is our way of meeting that need for the most significant projects. Next year, we will put an even greater effort into identifying the most compelling, workable ideas for community service and brokering their replication or adoption.

To move the Foundation fully into the second phase of its strategy—that is, fostering increased opportunities for service, we are planning a fiscal 1992 budget of roughly $9.4 million. Of this amount, $7.5 million would be federal support and approximately $1.9 million would come from private donations, thereby satisfying the matching requirement. I should note that, although we are not obligated by the federal law to match the current year appropriation, we have nevertheless raised private contributions of over $1 million to help defray this year's costs. Private funds of upwards of another million dollars have already been raised or pledged for FY 92. We are confident we will secure the remaining $900,000 that will be needed to meet the required match.

Let me conclude by saying that I believe The Points of Light Foundation has come into being at the right time in our history. I sense a growing awareness among the American people that too many lives are being ruined, too many futures are being shortened, by the social decay we see spreading through communities. While government's role is crucial in responding to this dilemma, it alone cannot fill the void left by disintegrating communities and lives. That's something people, acting within their own communities, must do. And the wonderful thing is that those who engage in that kind of service—difficult thought it often is—find their own lives greatly enriched. It is time for every American to find out for themselves that by doing something good, they will feel something real.

JUSTIFICATION OF APPROPRIATION ESTIMATES—FISCAL YEAR 1992

POINTS OF LIGHT FOUNDATION

For necessary expenses [of the president in] for carrying out title III of the National and Community Service Act of 1990 (S. 1430, as passed by the Senate on October 16, 1990), relating to [the] The Points of Light Foundation's promotion of [local] social problem solving through community service, $5,000,000: Provided, That not later than 6 months after the date of enactment of this Act, the President shall prepare and submit to the appropriate committees of Congress a report describing the use of funds made available by this appropriation) $7,500,000. (Departments of Veterans Affairs, Housing and Urban Development and Independent Agencies Appropriations Act, 1991.)

EXPLANATION OF LANGUAGE

Title III of the National and Community Service Act authorized the President to designate The Points of Light Foundation, a private, nonpartisan 501(c)(3) organization, to receive funds to carry out the purposes stated in Section 302 of the Act. Section 501(b) of the Act authorized to be appropriated $7,500,000 for fiscal year 1992 to carry out the abovementioned Title. The above appropriation language proposal is intended to implement these provisions.

INTRODUCTION

The Points of Light Foundation was incorporated in May 1990 as a private, nonprofit 501(c)(3) organization to promote the engagement of citizens in community service directed at serious social problems. The Foundation's Board of Directors is comprised of distinguished leaders in the fields of business, education, voluntarism, and youth service (see Attachment A). In the current fiscal year, the Foundation is operating on a budget of $6,024,877, financed by $5,000,000 in appropriated funds and $1,024,877 in donations from private sources. The Foundation is anticipating a budget of $9,375,000 for fiscal year 1992; $7,500,000 of this amount will come from federal funds and $1,875,000 from private matching dollars, thereby satisfying the 25 percent matching requirement stipulated in section 305(g) of P.L. 101–507, the National and Community Service Act of 1990.

A fundamental premise of the Foundation is that community service is key to solving social problems in communities. Service to others is a unique and enduring American tradition, and today many Americans are finding ways through voluntary service to make a difference in the lives of those among them who are in need. The Foundation seeks to draw all Americans into direct and consequential community service and to enhance the efforts of those already involved in voluntary service.

The Foundation has two primary, complementary objectives. One objective, already noted, is to increase significantly the pool of people ready and able to participate in community service either through initiatives they devise themselves or through existing opportunities. The other objective is to enlarge the opportunities available to this pool by creating synergies among organizations. By working together (e.g., a business team with a shelter to provide job training for the homeless), organizations concerned about social problems and needs can accomplish more than they can alone. The Foundation uses its limited resources to leverage the development or enhancement of activities that can meet each objective. The expectation is that such leverage will produce benefits which extend measurably beyond the dollar value of the Foundation's investment. Within this basic framework, the programs and projects of the Foundation address several goals:

—Enlisting the media to make people aware of the benefits to themselves and their communities of serving others;

—Persuading leaders in businesses, unions, schools, civic groups, religious institutions, and other organizations to mobilize all of their members for community service;
—Developing a network of leaders and institutions within every community to close the distance between people and service opportunities;
—Identifying and disseminating community service ideas that work;
—Attracting Americans of all ages to community service; and
—Spotlighting outstanding achievements in community service.

In its first year of operation, the Foundation is focusing on activities that address each of these goals.

MEDIA LEADERSHIP

As a first step in raising public awareness, the Foundation is undertaking a national advertising campaign in partnership with the Advertising Council. The campaign, which commenced April 15, 1991, includes television, radio, and print spots that urge Americans to become involved in solving the problems of their communities and helping those in need. Spots include either a toll-free national telephone number or the number of a local volunteer placement agency. People who call are mailed a booklet, developed in partnership with Time-Warner, Inc., about getting involved in community service and are either encouraged to create their own initiatives or directed, through local United Ways and Volunteer Centers, to existing community-based organizations that provide volunteer opportunities. During the first week of the campaign, the Foundation's introductory television ad received more than $500,000 in free air time.

OUTREACH

The Foundation's initial priority in identifying leaders entails reaching out to national nonprofit organizations and major businesses to engage people in service through the groups and organizations to which they already belong. Institutions in both sectors are being asked to make community service directed at serious social problems a priority for their members and to designate an official in each facility of an institution (e.g., each branch office of a corporation) to serve as the facility's Points of Light Representative. This person will be responsible for leading efforts to engage members, including those motivated by the media campaign, in service activities. The Foundation's aim is to create on a nationwide basis networks of representatives to facilitate the flow of information about community service initiatives among those who can put that information to work. To accomplish this, consideration is being given to publishing a newsletter or magazine, organizing periodic regional meetings and national conferences for representatives, and involving representatives from different organizations in joint service projects.

Several leading nonprofit organizations have designated representatives and are working with the Foundation to develop mechanisms to help both nonprofit suppliers and nonprofit users of volunteers to expand and strengthen their efforts. The Foundation is pursuing business involvement in a partnership with United Way of America and the National Volunteer Center. A number of major corporations with strong community service programs have agreed to serve as "Leadership Companies" that will encourage other business firms to increase their commitment to community service.

As a complement to its outreach to national organizations, the Foundation plans to urge every community to establish a Points of Light Partnership that brings together a broad and diverse coalition of leaders to support and channel community members' interest in voluntary service to solve social problems. Work has begun on a test basis in 10 metropolitan areas (Chicago, Memphis, Houston, Pittsburgh, Fort Lauderdale, San Antonio, Kansas City, Kalamazoo, New Orleans, and Cincinnati) to form these partnerships, and will be extended to other communities beginning in the Fall. The ten pilot areas are also serving as an initial recruiting ground for Points of Light Representatives. The expectation is that Points of Light Representatives will form the base for partnerships in these communities.

Partnerships serve two primary functions. One is to use the organizations of their members to carry out service initiatives, direct colleagues to existing service programs, and broadly disseminate information about opportunities to serve in the community. The other function is to develop local resource organizations that can provide: 1) expertise throughout the community to connect people with service opportunities and 2) help other organizations in the community (e.g., businesses, civic groups, clubs) to engage and direct volunteers as effectively as possible. The Foundation's partnership program seeks to stimulate cooperation among organizations that do not normally work together and to draw into community service organizations that have not traditionally been involved in serious efforts to solve local social problems.

To facilitate local mobilization, the Foundation has reached agreement in principle with the National VOLUNTEER Center—the national organization for local volunteer centers and corporate volunteer councils—on a formal affiliation that will provide direct access to existing local systems for linking volunteers with service opportunities.

IDEA BANK

The Foundation is in the early stages of establishing an automated national idea bank that will contain information on successful community service initiatives in all parts of the country. The intent is to make this system a user friendly repository of compelling service ideas. Only limited data sources currently exist on a national basis.

YOUTH AND SENIORS ENGAGED IN SERVICE

A high priority for the Foundation is to nurture the development of greater opportunities for young people to engage in meaningful community service. Two programs that meet this need have been designated by the Foundation as Points of Light Initiatives. (An Initiative is a significant nationwide program that creatively uses voluntary service to address serious social problems; the Foundation intends to name a limited number of independent programs each year as initiatives.) StarServe, a partnership of the Love Foundation, Kraft/General Foods Foundation, and United Way of America, is challenging all public and private elementary and secondary schools to develop community service projects for students and teachers. To greatly expand the involvement of college students in service, the Campus Outreach Opportunity League has created a new program, called Into the Streets, which is scheduled to kickoff with a major recruiting effort on November 1, 1991.

While the Foundation believes that all youth can serve, many of those young people who are at risk may also benefit from the help and guidance of a mentor. Toward this end, the Foundation has helped to establish One to One, a national effort to provide youth at risk with mentors and entrepreneurial opportunities. A points of Light initiative, One to One functions as an autonomous corporate entity.

The Foundation has also begun exploring possibilities for mobilizing older adults for community service. Contacts have been made with organizations representing retirees, unions, health care institutions, and service agencies. Special emphasis will be placed on intergenerational approaches that involve older people and youth in helping one another.

OTHER

The Foundation intends to develop a variety of events, activities, and awards to focus public attention on creative achievements in community service and to increase the visibility of the contributions people and organizations engaged in service make to society. As a first step, and to kickoff the advertising campaign described above, the Foundation has helped to organize a "Points of Light Celebration of Service" during April 1991. The purpose of the Celebration is to give public recognition, in communities around the country and at national events, to people and organizations who have made a significant difference through community service. The Foundation is also developing a "Lifetime Achievement" award to honor those mature Americans for whom voluntary service directed at social problems has been a constant in their lives.

The Foundation also has plans to develop an international mission focused on exchanging information and experience with other countries interested in voluntarism and community problem-solving.

AMOUNTS AVAILABLE FOR OBLIGATION

	1991		1992	
	FTE	Amount	FTE	Amount
Appropriation or estimate	21	$5,000,000	27	$7,500,000

Summary of changes

1992:	
Estimated obligations	**$7,500,000**
Private matching funds	**1,875,000**
Total	**9,375,000**
1991:	
Estimated obligations	**5,000,000**
Private funds (no match required)	**1,024,877**
Total	**6,024,877**
Change	**+3,350,123**
Change in Federal funds	**+2,500,000**

Change from fiscal year 1991

Increases:	
Fiscal year 1991 pay annualization	**+$234,274**
Fiscal year 1992 project pay increases	**+70,731**
Additional FTE (6)	**+270,838**
Total, added salary and benefits	**+ 575,843**
Increased GSA space rental	**+23,000**
Additional support costs	**+251,970**
Program cost increases:	
Expansion of outreach	**+675,000**
National Idea Bank	**+125,000**
Youth Engaged in Service	**740,000**
Seniors initiative	**+75,000**
Other programs	**+1,631,310**
Total increases	**+4,097,123**
Decreases:	
Anticipated media savings	**−745,000**
Anticipated equipment savings	**+2,000**
Total decreases	**−747,000**
Change	**+3,350,123**

OBLIGATIONS BY OBJECT

	1991 estimate	1992 request	Increase or decrease
Total number of employees	21	27	+6
Average salary	$52,724	$50,267	−$2,457
Personnel compensation	$894,000	$1,428,000	+$534,000
Personnel benefits	$45,000	$87,000	+$42,000
Travel	$120,000	$156,000	+$36,000
Rental payments to GSA	$160,000	$183,000	+$23,000
Communications, utilities, misc. charges	$132,000	$170,000	+$38,000
Printing, reproduction, copying	$250,000	$400,000	+$150,000
Supplies and materials	$102,000	$130,000	+$28,000
Equipment and maintenance	$72,000	$70,000	−$2,000
Other services	$4,250,000	$6,751,000	+$2,501,000
Total, cost by object	$6,025,000	$9,375,000	+$3,350,000
Federal share	$5,000,000	$7,500,000	+$2,500,000
Private match	$1,025,000	$1,875,000	+$850,000

AUTHORIZING LEGISLATION

	Fiscal year—	
	1991 enacted	1992 request
Authorizing legislation containing specified authority: National and Community Service Act of 1990 (Public Law 101–507)	$5,000,000	$7,500,000

JUSTIFICATION

	1991 estimate		1992 request		Increase/decrease	
	FTE	Amount	FTE	Amount	FTE	Amount
Media leadership	2	$2,107,551	3	$1,543,190	+1	−$564,361
Outreach Program	4	1,434,531	4	2,146,445	....	+711,914
National Idea Bank	....	75,000	2	421,574	+2	+346,574
Youth engaged in service	2	358,215	4	1,357,586	+2	+999,371
Seniors engaged in service	1	128,011	1	224,397	....	+96,386
Other programs	12	1,921,569	13	3,681,838	+1	+1,760,269
Total, estimated cost	21	6,024,877	27	9,375,000	+6	+3,350,123
Total obligations	....	5,000,000	....	7,500,000	....	+2,500,000
Private match	....	1,024,877	....	1,875,000	....	850,123

GENERAL STATEMENT

In fiscal year 1992, the Foundation will undertake activities to build on the base that now is being established during the organization's first year of operation. In addition, two high priorities for new programs in the coming fiscal year will include: 1) supporting the replication of creative and effective community service initiatives, and 2) encouraging the continuing development of new and existing indigenous or entrepreneurial service projects developed and carried out by citizens on their own in their communities. This expanded set of activities envisions an operating budget of $9,375,000, comprised of $7,500,000 in federal funds and $1,875,000 in private matching funds as required by section 305(g) of Public Law 101–507.

MEDIA LEADERSHIP

	1991 estimate		1992 request		Increase/decrease	
	FTE	Amount	FTE	Amount	FTE	Amount
Media leadership/total obligations	2	$2,107,551	3	$1,543,190	+1	−$564,361

INTRODUCTION

The Foundation is committed to working with all forms of media to make the theme of community service an integral part of popular culture. Current efforts focus on the use of public service advertising to convey the general message that helping another in need is something that anyone can do. Future efforts will focus on incorporating the theme in television and radio programming, increasing news coverage of community service, and public service advertising addressed to particular audiences.

1992 BUDGET

The media budget for fiscal year 1992 represents a decrease of $564,361. This decline is comprised of an overall reduction in program costs offset partially by increases in personnel and general administrative expenses.

Program costs are anticipated to drop by $745,000, from $1,895,000 to $1,150,000, owing to reduced expenses for continuation of the Foundation's media campaign. The estimated cost of producing and distributing the campaign's public service announcements (PSAs) in FY 91 is $1,545,000, plus $350,000 for the cost of responding to the calls the advertising generates. For fiscal year 1992, the budget assumes $250,000 for refinements to the existing PSAs, an additional $500,000 to produce and distribute new PSAs directed at specific audiences (e.g., youth, older people), and continuation of the system for responding to calls at a cost of $350,000. Also assumed is $50,000 to support the development of other ways in which the media can participate in conveying the Foundation's message.

The Foundation is estimating an increase of $180,639 for personnel and general administrative costs for the Media Leadership area in FY 92. Included in this amount are $100,952 for salary cost adjustments (including one additional FTE) and $79,687 to cover increased costs for general administration of the Foundation.

OUTREACH PROGRAM

	1991 estimate		1992 request		Increase/decrease	
	FTE	Amount	FTE	Amount	FTE	Amount
Outreach programs/total obligations	4	$1,434,531	4	$2,146,445	....	–$711,914

INTRODUCTION

The Foundation works to identify in for profit and nonprofit organizations leaders who will organize their members for engagement in community problem-solving. A special emphasis is placed on involving leaders from organizations that generally have not been on the frontlines in responding to social problems. Leaders are recruited as Points of Light Representatives who may: 1) develop projects or expand current programs that involve members in service, 2) provide guidance to members who are motivated to act by the Points of Light media campaign, and 3) participate in service efforts with other organizations both inside and outside the community. In this last capacity, representatives are asked to help develop local Points of Light Partnerships that seek to coalesce nonprofit and business organizations in the community around ways to increase citizen involvement in voluntary service. Partnerships are currently being set up in Houston, Memphis, and Pittsburgh, and will soon be underway in several other cities. The Foundation carries out its outreach effort in cooperation with United Way of America and the National Volunteer Center.

1992 BUDGET

The Foundation is planning an increase of $711,914 for its Outreach and Mobilization activities in fiscal year 1992. Included in this amount are $19,389 for salary cost adjustments and $17,525 to cover this program area's increased share of the costs for overall administration of the Foundation.

The remaining $675,000 of the increase will be used to expand two activities and maintain a third of roughly its FY 91 level. Of this amount, $125,000 will go toward developing mechanisms that can provide ongoing information and technical assistance to Points of Light Representatives. This increase will bring the total cost of servicing Representatives to $300,000. Another $575,000 will be used to support the establishment of Points of Light Partnerships in communities around the country, bringing the budget for partnership development in FY 92 to $1,200,000. These funds will be used to enhance the capacity of local volunteer centers for organizing and supporting the leadership coalition that constitutes each Partnership and recruiting and supporting Points of Light Representatives from businesses, civic groups, and other local organizations. The other primary activity in the outreach area, outreach to new groups, will be scaled back modestly from the current level of $175,000 to $150,000 in FY 92, as the number of new groups that need to be contacted declines.

NATIONAL IDEA BANK

	1991 estimate		1992 request		Increase/decrease	
	FTE	Amount	FTE	Amount	FTE	Amount
Idea Bank/total obligations	....	$75,000	2	$421,574	+2	+$346,574

INTRODUCTION

Identifying and communicating interesting or effective examples of voluntary community service is one of the more important contributions the Foundation can make in an effort to enhance the impact of service on social problems. At present, there is no national repository of such examples, although many national organizations maintain limited data bases containing relevant information. The Foundation is in the process of assessing the value of these existing sources and designing a system that would be operated in partnership with other oganizations to give people easy access to usable information on community service initiatives that are working.

1992 BUDGET

The Foundation is estimating a total budget for idea bank development of $421,574 in fiscal year 1992, an increase of $346,574 over the current allocation for this area. The increase includes $81,946 to establish a staffing level equivalent to two FTEs and $39,628 as this area's share of administrative overhead in FY 92. (No salary or overhead costs are attributed to this area in FY 91.) The remaining $125,000, when added to the FY 91 level of $75,000 for idea bank development, will finance the estimated costs of completing the design and initiating implementation of the system.

YOUTH ENGAGED IN SERVICE

	1991 estimate		1992 request		Increase/decrease	
	FTE	Amount	FTE	Amount	FTE	Amount
Youth Engaged in Service/total obligations	2	$358,215	4	$1,357,586	+2	+$999,371

INTRODUCTION

Maximizing the number of young people involved in meaningful community service is among the Foundation's highest priorities. The Foundation believes that through service young people not only contribute to solving the problems of the community, but also learn the skills and attitudes necessary to meet their citizenship responsibilities as adults. In the Foundation's first year of operation emphasis has been placed on broad, nationwide efforts to mobilize large numbers of youth for service: StarServe, which is aimed at the elementary and secondary student populations, and Into the Streets, which seeks to motivate college students. Both programs, operated by organizations that are corporately dependent of the Foundation, have been designated as Points of Light Initiatives. Another Points of Light Initiative, One to One, promotes mentoring to help remove barriers to youth participation in mainstream society. With these three programs as a base, the Foundation will pursue in FY 92 activities that focus on the qualitative, in addition to the quantitative, development of youth service.

1992 BUDGET

The Foundation is planning an increase of $999,371 in fiscal year 1992 for its Youth Engaged in Service activities. This amount includes $108,761 for salary cost adjustments (including the addition of two FTEs) and $150,610 to cover the Youth Engaged in Service program's increased share of overall administrative costs.

The remainder of the requested increase, $740,000, will go toward implementing three programs that are currently in the early stages of development. Of this amount, $625,000 will be used to operate a new Points of Light Ambassadors/Fellows program, in which recent college graduates with extensive youth service experience work in the field directly with other young people to promote the most creative and effective approaches to youth service. The current budget allocates $75,000 to plan this program. Under the proposed budget, the Foundation expects to name 20–30 ambassadors/fellows next year, who will be stationed in different states and communities. Budgeted funds will be used to pay stipends and cover administrative costs. Another $70,000 of the increase will help to finance 7–10 Youth Leadership Forums in different cities during FY 92. Forums will provide opportunities for young people in those communities to join business and civic leaders in developing joint community service projects. The Foundation has set aside $30,000 in its FY 91 budget to get this activity underway this year. The final $45,000 of the FY 92 increase will support the Foundation's outreach to the higher education community in an attempt to increase the attention given to community service and civic responsibility on college campuses. The FY 92 budget also includes $50,000, the same as the FY 91 level, to support the identification of especially creative, nontraditional approaches to engaging youth in service to others.

SENIORS ENGAGED IN SERVICE

	1991 estimate		1992 request		Increase/decrease	
	FTE	Amount	FTE	Amount	FTE	Amount
Seniors engaged in service/total obligations	1	$128,011	1	$224,397	....	+$96,386

INTRODUCTION

The growing older population represents a significant opportunity for community service. The Foundation has begun to explore with organizations representing older people ways in which the engagement of seniors in voluntary service can be substantially increased. The Foundation's intention is to develop partnerships with such organizations, where those organizations have the capability to implement creative approaches that involve older adults in service to others. A particular focus of these partnerships will be intergenerational activities that engage older and younger people in providing help to one another.

1992 BUDGET

An increase of $96,386 is projected for the Foundation's Seniors Engaged in Service program, bringing the total budget of this program area to $224,397 in fiscal year 1992. Included in the increase are $17,440 for salary cost adjustments, $3,946 for this area's share of the increased cost of administering the Foundation, and $75,000 to support more intensive outreach to organizations representing older Americans.

OTHER PROGRAMS

	1991 estimate		1992 request		Increase/decrease	
	FTE	Amount	FTE	Amount	FTE	Amount
Other programs/total obligations	12	$1,921,569	13	$3,681,838	+1	+$1,760,269

INTRODUCTION

The Foundation operates or plans to operate other programs as part of the general administration of the organization. Included in this category are: 1) activities to honor and recognize outstanding achievements in community service, 2) research and development efforts designed to advance community service as a field and explore new opportunities, and 3) the Foundation's work with the people of other nations to foster voluntary service as a response to social needs and challenges around the world.

1992 BUDGET

General administration of the Foundation, exclusive of the overhead expenses allocated to the specific program areas described above (which constitute 52 percent of total overhead), will cost an estimated $930,528 in FY 92, an increase of $128,959 over the FY 91 level. Included in the increase are $72,613 for salary adjustments (including the addition of one FTE) and $56,346 for other administrative costs.

Direct program costs in the "other" category are planned to rise by $1,631,310 in FY 92, bringing the total cost for this category to $2,751,310. This budget will finance the development and implementation of the following specific activities:

Initiation of replication program.—The Foundation will identify the most compelling ideas for community service and, using its resources as leverage, find people and organizations able and willing to replicate these ideas in their own communities. The Foundation will essentially act as a broker, linking ideas with implementers. The replication program will put a special emphasis on encouraging and cultivating indigenous or grassroots service initiatives: entrepreneurial efforts that community members make on their own to address critical social needs. Funding of $50,000 has been set aside in the current budget to develop the Foundation's replication program. The FY 92 budget includes a total of $2,301,000 to support implementaion of the program.

International activities.—As its domestic work gets fully underway, the Foundation intends to begin establishing an effective and diplomatic channel for communicating about voluntary community service with other nations. In countries now experiencing democratization as well as in the established democracies, there is growing interest in voluntarism and community service. For the current year, the Foundation has allotted $10,000 to plan activities that will be conducted in this area beginning in FY 92. For FY 92, the budget provides $150,310 to execute the plan that is developed.

Recognition.—The Foundation is in the final stages of developing a national "Lifetime Achievement" award for sustained, outstanding work in the field of community service, a niche not presently being filled by any other awards program. The Foundation is also in the process of developing an awards program to acknowledge young people who make significant contributions through service. For these and related recognition activities, planning costs of $35,000 are expected in the current year. In FY 92, the budget assumes implementation costs of $300,000.

Attachment A

THE POINTS OF LIGHT FOUNDATION

BOARD OF DIRECTORS

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Honorary Chairman

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Chairman and CEO
I.B.M. Corporation

William Aramony
President
United Way of America

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Marian L. Heard, Vice Chairman
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James A. Joseph
President and CEO
Council on Foundations

Margaret Kuhn
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The Gray Panthers

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President
The University of Notre Dame

Cynthia Mayeda
Chair
Dayton Hudson Foundation

Dr. Sybil Mobley
Dean, School of Business and Industry
Florida A&M University

J. Richard Munro, Co-Chairman
Chairman of the Executive Committee
Time Warner Inc.

Brian O'Connell
Founding President
Independent Sector

Governor George Romney
Chairman
The National VOLUNTEER Center

James W. Rouse
Founder and CEO
The Enterprise Foundation

Richard F. Schubert
President & CEO
The Points of Light Foundation

Robert C. Wright
President and CEO
National Broadcasting Company

ACCOMPLISHMENTS

Senator MIKULSKI. Thank you, Mr. Schubert, and I think you have outlined pretty much the framework for the Points of Light Foundation. We all know the history of it. It was something that appeared in a speech that President Bush gave that really touched the Nation, and it was very clear from the President's own commitment that it was not kind of a throw-away line or a clever one.

To go from that to an incubating office at the White House to, now, the Foundation—as I understand it, the Foundation is really up and running and functioning like a foundation. Am I correct in that?

Mr. SCHUBERT. Yes, indeed. We still have a lot of things that we need to put in place, but I am satisfied that we have got a good structure. We have an excellent staff, a mixed staff in terms of diversity, and also age and experience, and they are as committed a group of people as I have had the privilege to work with.

Senator MIKULSKI. I do not doubt that.

Could you share with the subcommittee what you think are the top accomplishments to date of the Foundation, and when we talk again this time next year, what would you hope your accomplishments to be by then, in which we could have some measurability?

You know, it is not unlike Jack Kemp, when he says, I will build so many units of housing, or Dick Truly when he says, I will, hopefully, have a space station. By what criteria would you like us to measure the Foundation next year, what do you hope to accomplish, and how does the budget request tie into that?

Mr. SCHUBERT. If I might start with what I perceive to be the most important accomplishments to date, obviously one has to put an infrastructure into place and you have to rationalize that in terms of relationships and planning. Through the help of the McKinsey Co. management consultants, last summer a strategic plan was developed together with a general organizational structure and a mission statement, and that has been the base for the activity of the Foundation. We believe in managing for the mission and we need to be tested on that ability and that performance in the future.

MEDIA OUTREACH

Our initial outreach was through media and as you possibly know, Senator, we got enormous benefit from the agency of Satchi & Satchi and the Advertising Council, who contributed their talent—their creative talent—to help us come up with a public service announcement strategy and some wonderful vehicles—television, radio and print—and, in fact, I know that you have already seen some of this, and inasmuch as most of the ad material had not been sent to the local markets until 2 weeks ago, we will see more and more displaying of these ads in communities across the country.

We believe that this will do two things, and we have set in place some valuation and measurement efforts so that we can give you some numbers when we appear again.

First, we believe that it obviously will raise sensitivity and awareness with respect to what is going on. My sense is that most people understand that there are some super things that are going on in their community, but there is not enough tangible understanding of the fact that the folks who are doing this are not Ph.D's in sociology and psychology. They are ordinary folks who are involved in ordinary jobs in an extraordinary way, and they are making extraordinary commitments.

I have had the privilege of meeting some of these people in the cities who were involved in our celebration. I have never been so impressed with a group of human beings as I was with these ambassadors who were selected just simply to represent the good work going on in the community.

The second objective of that media effort is to say to people, if your neighbors—people that you have read about in your community who have the same kinds of background, experience, time that you do, are doing these things, can you not become a part of the effort as well?

We just have the first couple of weeks of fulfillment experience with this media campaign. This is where someone calls an 800 number and says, "What can I do? You got to me." We are very pleased with that first couple of weeks—3,000 calls, I think, in 2 weeks—and have just begun now to see the rollout of the campaign around the country.

The reaction on the part of the media has been just outstanding and they are impressed with the ads. They have been very complimentary about the creative work that is involved. They say it reaches people at an emotional level, and that is the level that you need. Obviously, the intellect has to be sound, but the emotional level is that which gets people to turn on and come forward.

So the media campaign, we believe, has been launched very effectively, and our board members—people like Michael Eisner from Disney and Bob Wright from NBC—have been very valuable in their input in support of this.

COMMUNITY OUTREACH

The second relates to community outreach and, in effect, getting to leadership first in three cities and then, as the summer goes on, another eight cities, and then eventually gathering the experience from all of that, going to cities across the country.

I suppose the single most exciting thing that I have experienced is the reaction of the leadership of these three pilot cities—Pittsburgh, Houston, and Memphis—where we have gone to them and said look, we do not want to duplicate anything. We do not want to take anybody else's role and function, nor the support that they get in the community. We want to be a broker; we want to be a facilitator; we want to be a catalyst.

It is absolutely clear that in most cities across the country there are significant gaps with regard to the number, and even in some cases the quality of volunteers, who are being involved in the most critical social issues. We are saying to communities that we would like to help you form a partnership, a partnership of outstanding leaders at the community level, to then devise, with our help, whatever we can do to assist you devise a plan for identifying the gaps, the critical gaps, and moving to fill them. In Pittsburgh, the chair of that effort is Dan Rooney.

Senator MIKULSKI. Mr. Schubert, we are going to have to——

Mr. SCHUBERT. I apologize. I can get turned on. I apologize.

Senator MIKULSKI. No; your enthusiasm is wonderful.

Mr. SCHUBERT. Let me talk a little bit about the goals——

Senator MIKULSKI. Yes.

Mr. SCHUBERT. And then the measures.

MEASURES OF SUCCESS

I would hope that this time next year there will be no question, Senator, that we will be perceived as a very credible, independent, value-adding, nonduplicative umbrella.

There clearly were reservations at the outset with regard to people who said, you are just a political arm of the President and an arm of this administration's domestic policy, such as it may or may not be in people's minds. Second, there were nonprofit organizations who were saying, you are trying to take our job or our glory, or whatever, away. That is clearly an objection we plan to overcome.

Second, more measurable, the number of volunteers that, in fact, not only call the telephone numbers provided in our ads but show up at the agencies and have a relatively satisfying volunteer experience, and we are attempting to set in place evaluation procedures in respect to both of those.

Third, that in communities, a number of communities across the country, there will be model partnerships which we then can replicate across the country.

Beyond that, we envision that there will be special programs that have been developed with leading corporations. We have identified about 20 corporations, each of which has a perception of what they can and should do in the critical social need area. We will work with them to develop programs that other companies around the country will want to emulate.

We would hope to be able to come back to you and say we have done those things in terms of community outreach. We will have very defined efforts, entrepreneurial efforts with regard to use of people with disabilities in community service, with seniors, and with young people. We are collaborating with a number of youth organizations now to enhance their efforts. We will have very demonstrable results in those areas.

STRATEGIC PLAN

Senator MIKULSKI. Well, that is terrific, and we are going to look forward to watching this progress.

I would like to have a copy of the strategic plan. You have to know we are just delighted that you have a strategic plan and a mission statement. It has been our focus on this subcommittee to ask agencies with many times your budget for strategic plans and, quite frankly, have found them lacking.

This subcommittee really approves of the traditional management model—state your mission, have your strategic plan for accomplishing it, and then benchmark ways of evaluating to see if you are there.

LIAISON WITH FEDERAL GOVERNMENT

I have a question as to how the Points of Light Foundation will liaison with the Federal Government itself. Let me give two concrete examples, particularly in the area of the private sector being involved in education.

We have the Watkins model, developed by Admiral Watkins with the Federal laboratories, Fermi Lab being probably the flagship experiment in which Dr. Massey at the National Science Foundation was involved.

We have been working through the National Science Foundation and the President's science adviser, on some type of coordinated approach. It is not standardized within the science-based agencies that have laboratories. There is not a manual to teach them how to do that.

Dick, you know you cannot just go out and volunteer in a school. You have to know where you are going and why you are going. We focused on it primarily as a way to help the teachers retool and refresh, which has been a very interesting thing.

Will the Points of Light be working with the administration in seeing that there is a rational process to implementing the Federal laboratory liaison with public education? Do you see that as your role to be involved in that process?

Mr. SCHUBERT. We see it as one of our great opportunities to encourage the whole mentoring process in the Federal Government, particularly in the area of science education, where there is such a compelling need on the part of companies and industries across this country. I have had some discussions with Admiral Watkins about his vision within the Federal Establishment. After all, the Federal Establishment is a very significant employer, and unless they set a model within the Federal Government among employees in areas like mentoring and reaching out into the communities, it is hard to enlist quite the same enthusiasm we would like to have in the private-sector companies. We have someone on the staff who has just come on board, recently retired from the Navy, who was very instrumental in the Navy Kids Program, a wonderful mentoring program, taking enlisted people and tying them together with inner-city kids.

Senator MIKULSKI. They did a lot of that in Florida.

Mr. SCHUBERT. Absolutely.

Senator MIKULSKI. Bob Graham brought it down.

Mr. SCHUBERT. Right, and Captain Dell will be leading those efforts for us, working with the Federal Establishment in respect of not only mentoring, but on bases across the country to try to make a linkage between the personnel there and community problems. The military has always wanted to do that and so a lot of it. Captain Dell will be working with the Office of National Service and with independent agencies and Government departments to try to move those efforts forward.

Senator MIKULSKI. Let me tell you what we are doing through this subcommittee, and it might be of use to you.

For those agencies that are in my portfolio that are involved in science—EPA, NASA, and the National Science Foundation—we are designating essentially a top middle manager for education, and then where they have their own laboratories encourage them to get involved with the local community using the Watkins/Fermi model.

We have NASA, which has eight centers, and they are in places like Huntsville, AL, they are in Mississippi, they are in Cleveland, they are in Goddard in Prince Georges County. You see, they are not usually in some area where there are these high-technology institutions.

EPA has laboratories, some large and small—they are up at the Great Lakes, they are in the Chesapeake Bay—and by the Federal Government setting that example we hope then that they take with them the private contractors that are involved with them.

We are going to be doing that, and we have asked the National Science Foundation to actually set up the models to make sure that the volunteers know how to volunteer, and that they are clear, because too often good intentions without a clear operational plan lead to failure.

So you can see, we take a very strong, nonprofit management approach out of this subcommittee.

Mr. SCHUBERT. Frankly, I had not thought about—and it is a very interesting idea of working through those agencies to encourage the contractors, the private contractors of those agencies to take a similar interest in mentoring and growth, et cetera, in the community. I think that is an excellent approach.

Senator MIKULSKI. Well, Mr. Schubert, we feel that this spirit of habits of the heart is a contagious one.

Mr. SCHUBERT. We would look forward to working with someone on your staff who is particularly following that area, to keep that person abreast of what is going on and work with them.

Senator MIKULSKI. We will give your Executive Director a complete briefing on how we are working with the science agencies, and it is really my initiative within my own committee. It is a point of light.

We think that could be a way for you to be involved with groups like the National Science Foundation and EPA.

Goddard liaisons now with the Prince Georges County school system, and in some of those schools there are 30 different languages spoken on any given day. So it is that kind of engagement.

INVOLVING THE UNDERPRIVILEGED

Let me ask you another question about the poor themselves being involved in projects. One of the things that have impressed me about, say, the Conservation Corps model, is that the poor are not only beneficiaries of service but can give a service. They not only benefited from the service, but they got out there and gave the service, and it was a new way for them to define manhood and womanhood, that they were actually doing something that they themselves could point to.

I wonder in the development of models, are you thinking along those lines, because we too often think of the poor as victims rather than contributors, and I think this victim mentality is a patronizing mentality, and I come from a professional background which embraces the tough love concept.

Mr. SCHUBERT. I could not agree with you more, and if we had the time I would tell you about some wonderful people we've met who have, in fact, come out of a difficult setting and set of circumstances, have realized that they can also give back, and are involved in community service.

I think of a volunteer ambulance corps in New York. I think of a wonderful program in Boston involving young people who come out of some of the most difficult circumstances. They build their self-esteem by reaching out and helping another human being.

So, clearly, we will be looking for projects, initiatives that we can support, that involve people who have been disadvantaged, and using their give-back capacity to help to change the community. That is the way to build within themselves the self-confidence that is going to make them a contributive citizen.

At our press conference on April 15 we kicked off the celebration with a wonderful young lady from City Year in Boston who had had some very, very difficult times—close to suicide, depression, et cetera. She found her self-esteem in volunteering. She no longer focuses on her own problems, she focuses on somebody else's.

IDEA BANK

Senator MIKULSKI. Well, we look forward to hearing those ideas, and we know that you are going to be working with something called the idea bank——

Mr. SCHUBERT. Yes.

Senator MIKULSKI. Which sounds so interesting, so there is a one-stop shop where people can go to for ideas. They will have not only the idea but, I gather, a little handbook on how to implement the idea.

Mr. SCHUBERT. Right; so that they have technical assistance on implementing.

Senator MIKULSKI. Yes; that is terrific.

Well, Mr. Schubert, we could not agree more that the Foundation is really off to a very good start with a very solid management framework, and we look forward to more cooperation with you.

COMMISSION ON NATIONAL SERVICE

We know that you were not involved in establishing the National Service Commission, and as I said we would not engage you in any of the prickly problems we are having, but could you tell us what you know about what the White House is doing to establish the National Service Commission, and where you think they are? Then I would like to share with you a letter that we are sending to the President.

Mr. SCHUBERT. Let me just say that we have also been very concerned about the delay in appointing the commission, because, as you have indicated, the appointment of the commission is the key and the trigger to release of funds which a lot of people—a lot of fine organizations around the country—are waiting for and they call us because they do not know what our relationship is to this.

So we have done everything that we could, Senator, to push the process along. I checked yesterday and I am assured that it is imminent, but until those names actually come up to the Senate it has not been delivered. All I can say to you is that we have expressed ourselves with respect to this issue and this problem, and I am sure that your expression will get people's attention.

Senator MIKULSKI. Well, I hope so, because we are very frustrated about it.

When the President signed the legislation, he indicated his concern on certain technical problems. Originally the Congress said we wanted to nominate commissioners. He said, "Wait a minute, I am President." The tradition in our country is that the President makes nominations to boards and commissions that serve the President. We said, "OK," and we, in a very cheerful way, changed that. It was all done.

We knew when we forwarded names to the President we were not nominating, but it was kind of like winning the primary. The President made the decisions on who won the general.

I know my colleagues on both sides of the aisles tried to send the President very good names. We have been very disappointed that it has not moved and that the people were subjected to what we considered litmus testing.

LETTER TO THE PRESIDENT

Now, I am sending a letter to the President today. I am going to read the letter so you will know of its contents. This is the letter that I am going to send to the President. I am going to give you a copy so that in such a way that you want to communicate to the President yourself about it, we would appreciate it, and we would appreciate your strong voice in accomplishing the goals that we will outline in the letter. This is what I said:

> Dear Mr. President: Knowing of your strong commitment to public service, I wanted to alert you to certain things which have occurred to roadblock the National and Community Service Act. I know when you become aware of these things you will be as horrified as am I.
>
> The people to whom you have delegated the implementation of the act have not met deadlines and have politicized the process of establishing an oversight board as directed by the National and Community Service Act.
>
> One. Timeliness. May 16 is the deadline for the Senate to receive nominations from the administration for the 21-member board, yet as of today no recommendations have been received. The legislation was signed into law November 16, 1990, a full 6 months ago.
>
> Two. Politicizing the process. Congressional suggestions for nominees were sent to you by myself and other Senators without consideration of political affiliation or campaign participation. We did this so that you would have the best nominees with vast experience and a familiarity with both delivery and management of nonprofit entities. To their shock and my dismay, candidates have been quizzed as to how they participated in your election efforts and then received a form letter telling them there was no job opening for them.

Then I say:

> As evidence of this, please see the enclosed letter, received by Mrs. Patricia Rouse, wife of a board member of the Points of Light Foundation, James, an accomplished woman in her own right.

What I have here is:

> Dear Ms. Rouse: Thank you for your strong desire to serve the Bush administration. Unfortunately there are no positions available at the time in the area in which you expressed an interest.

[Laughter]

> However, we have put your name and qualifications in our computerized personnel system. If an appropriate vacancy occurs in the future, your credentials will be reconsidered. Your continued support of President Bush is appreciated. Chase Untemeyer, Assistant to the President and Director of Presidential Personnel.

Senator **MIKULSKI**. Patti said, "This is a confusing letter." Well, I will not tell you what I said. [Laughter.]

Do you see what I mean?

Then I go on in my letter to the President. I say:

> The quality of the candidates can be exemplified by Fran Hesselbein, the former head of the Girl Scouts and now executive director of the Drucker Management

> Foundation. People like her do not work in political campaigns. They are too busy campaigning for a better quality of life for the people they serve.

Then I wrap up by saying:

> Mr. President, at best the process has been sloppy and out of control. At worst, it has become a political litmus test. Knowing of yours and Barbara's commitment to volunteerism, this does not sound like you. I am bringing this to your attention so that you can straighten this out and get on with the business of implementing the National and Community Service Act.
>
> I know many of my colleagues and myself are willing to work with you. We cheerfully and speedily cooperated with the technical suggestions you made to us about the National Service Act, and now we would like reciprocity. I urge you to tell your staff to immediately depoliticize the process and work quickly to get the Senate a list of qualified board members in the very near future. Sincerely, Barbara Mikulski, United States Senator.

So that is what we are saying to the President. It is meant in that spirit, and we hope now this accomplishes its objective, and after we conclude this hearing we will give you a copy of this, and we are mailing this today.

Mr. SCHUBERT. We will not only convey it, but express again our own sentiments.

It so happens that the lovely lady that you referenced—Frances Hesselbein—was my guru in the nonprofit sector, one of my closest personal friends, one of the most competent managers, Peter Drucker said, in the history of this country, and that was just unfortunate.

COOPERATION AND COMMUNICATION URGED

Senator MIKULSKI. That is right. So we feel that the two entities complement each other, and it will be through the oversight of this subcommittee that we will insist on cooperation and communication between the two. There is enough work in this country for all of us to do.

It has a different mission and it will certainly be able to amplify, and in some ways even operationalize, some of the things that you are initiating. What they could do at the local level will help sustain the good ideas that you initiate.

We hope this leads to something. We want to thank you for your participation in the hearing. I have other questions which we are going to submit for the record, but I think this has been a very good conversation.

Would you like to, before we conclude, introduce your Executive Director to us, and if he has any words——

Mr. RACINE. No; I do not have anything to say. Thank you, anyway. He took care of all that.

Mr. SCHUBERT. He is very familiar with this process. He served as the legislative director to Senator Danforth and so has come back home.

Mr. RACINE. Really, I do not want to take up any more time.

Senator MIKULSKI. Sounds like an AA.

Mr. RACINE. As a congressional staffer, you do not like to take too many opportunities to speak in public.

Senator MIKULSKI. We will be talking to you afterward. [Laughter.]

ADDITIONAL COMMITTEE QUESTIONS

We will submit the balance of the questions for response in the record.

The following questions were not asked at the hearing, but were submitted to the Foundation for response subsequent to the hearing.]

QUESTIONS SUBMITTED BY SENATOR MIKULSKI

(1) ACCOMPLISHMENTS TO DATE

A. You have been incorporated for one year now. What would you list as your 3 most significant accomplishments?

First, like any new organization, the Foundation has had to set in place its basic operations and structure. We began this task by working with the management consulting firm of McKinsey & Company and several advisory committees last summer and fall to develop a long-range strategic plan for the Foundation. This effort, involving close to 200 people, was carried out with the possibility of federal funding in mind, so that we would be able to "hit the ground running" if and when a Congressional appropriation came through. The resulting plan, a copy of which has been provided to the Subcommittee, delineates the Foundation's missions, strategies for fulfilling those missions, possible programs and activities under each strategy, conceivable organizational structures, and suggested task plans for conducting initial work. The plan has served as the base from which we have taken, beginning in January of this year, the steps necessary to become a fully operational entity. We have hired and deployed staff, organized our office space, developed basic policies and procedures, and engaged in the other tasks typically associated with starting a new organization. These start-up activities have enabled us to begin acting aggressively to fulfill our substantive mission of making community service central to the life of every American.

Second, the Foundation has begun in earnest to implement the first phase of its overall strategy, namely, increasing public awareness of the benefits of community service. With the help of the Ad Council and pro bono support from the ad agency Saatchi & Saatchi, we have created and launched a multi-media ad campaign encouraging people to engage in voluntary service. This campaign began with the prime time airing of our introductory television spot by all three major networks on April 15-16. Our television, radio, and newspaper ads were distributed at the end of April by the Ad Council to over 22,000 media outlets in every part of the country, one of the largest distributions ever by the Ad Council. As a complement to this campaign, we have undertaken in cooperation with Coca Cola and Transportation Displays, Inc., during this same time-frame, a distinct advertising effort focused on literacy volunteers. Full-page ads have appeared in major daily newspapers in 18 large cities, and in 25 cities billboards and bus and subway cards have carried ads. Finally, in part to provide a supportive context for initiating both advertising campaigns, the Foundation spearheaded a national Celebration of Service from April 15 through 26, encompassing 19 cities. The purpose of the Celebration was to give public recognition to those people and organizations whose voluntary service is making headway against the social problems in their community. The combination of these three "consciousness-raising" efforts has enabled the Foundation to get the nonpartisan message of service before tens of millions of Americans, within but a few months after becoming fully operational.

And third, we have begun the complicated task of generating increased opportunities for meaningful service and linking people with such opportunities, the second phase of our basic strategy. It is our firm belief that the Foundation should not undertake work that can be done better by others who have more experience or skill. This belief has shaped our approach to spurring opportunities in a number of ways. First, as a concomitant to our media campaigns, we have set up in cooperation with Volunteer Centers and United Ways throughout the country a system for responding to people whose interest in service is piqued by our ads. In the ads, people see or hear a toll-free number or a local number which they may call to be connected through their local Volunteer Center or United Way with service opportunities in the community. Since mid-April, the system has handled more than 3000 calls. Second, we have stimulated the formation in three cities, on a pilot basis, Points of Light Partnerships that bring diverse local leaders together to determine how to increase citizen involvement in community service. It is our view that, by and large, opportunities to serve must arise locally. We hope to roll the partnership concept out in other cities this summer and fall. Third, we have started working with 15 major corporations and 23 national nonprofit organizations on ways to involve both them and others within their sector on how they can best provide leadership in motivating people, especially their own members, to serve. Assorted publications have been developed to assist with this effort. Finally, we have designated as Points of Light Initiatives five new programs operated by other organizations. All of these Initiatives have been designed to increase substantially, on a nationwide basis, the numbers of people engaged in voluntary service.

B. What are your three major goals for the next year and what is your strategy and timetable for meeting those goals?

In our second year of full operation, we intend to continue doing what will be necessary to establish the Foundation as a nonpartisan organization that adds value to America's community service movement. Thus, not surprisingly, our first goal will be to build on the efforts we have begun this year to stimulate greater opportunities for service. Pursuit of this goal will entail a strategy with several parts:

We will continue operating an advertising response system, carefully monitoring its use to determine how well our collaborative efforts to link people with service opportunities in their community are working.

Drawing from lessons learned in pilot testing the Points of Light Partnership concept, we will seek to prompt the formation of new Partnerships in a large number of communities and work with existing Partnerships on ways to enhance local capacity for engaging citizens in service.

We will aim to greatly extend the national network of business and nonprofit organizations that have agreed to provide leadership in mobilizing people for service, and will begin recruiting leaders from other organized sectors such as labor, the professions, and senior Americans.

We will continue our efforts to collaborate with other organizations that are able and willing to launch projects or initiatives which promise to increase substantially the volume of community service activity being performed in the country.

Our second major goal for fiscal 1992 will be to implement our currently evolving plans for Youth Engaged in Service. These plans include a three-part strategy:

Building public support for the value of and need for youth service.

Challenging institutions of all kinds to engage young people in community service.

And promoting the enhancement and adaptation of effective youth service activities.

A number of specific programs to implement these strategies are now under development. They include: adding a youth-focus to our media campaigns; launching a program of state-based youth Points of Light Ambassadors to promote youth engagement in service; starting a Points of Light Fellows program to enable young adults to learn first-hand about the most effective youth service programs and transfer that learning to others; and stimulating and supporting local youth leadership forums.

Our third major goal for the coming year will be to begin implementing an effort to replicate or adapt the most creative and successful community service initiatives. Our strategy will be to identify projects that have demonstrated impact on a social problem or constellation of such problems and find others willing to carry out adaptations of those projects in their communities. As with much of the Foundation's work, we intend to do this in conjunction with partners who can offer expertise or financial support.

Since we have only been in full operation five months, we are still working on our detailed plans for the coming fiscal year. Thus, we cannot as yet translate these goals into quantifiable terms or provide a detailed timeline for their accomplishment. However, we expect to have such plans done within the next two months, and will be happy to share them with the Subcommittee at that time.

C. The goal of the National Service Act was to generate 100 million hours of community service. Do you think that is a realistic goal? When do you think we will meet that goal?

A recent survey by Independent Sector estimates that Americans volunteered, formally and informally, 20.5 billion hours in 1989, up from 19.5 billion hours in 1987. While it is likely that a part of this contribution of time was not community service of the kind contemplated by the Act, the survey does provide evidence of the rather remarkable willingness of the American people to volunteer at an increasing level. There are other positive signs as well. A recent report for the MacArthur Foundation on young people's desire to work in the public interest identified an enormous variety of new and existing youth service programs, suggesting that the alienation of our youth from civic life may be in remission. In this regard, Independent Sector's survey shows an uptick in the number of young volunteers. Increased interest in community service might also be expected from the baby boom generation as they enter middle-age parenthood, when family and community life become more important..

All of this is by way of saying that while we know of no empirical support for the 100 million hours goal, it certainly seems realistic, and is a goal that should be achievable during the 3-year authorization of the Act.

(2) WHITE HOUSE POSITION ON NATIONAL SERVICE COMMISSION

A. ...do you have any idea why no funds were requested for the Commission on National Service?

No.

B. Has the White House said when it will appoint commissioners -- the law mandated May 15 and that day has come and gone? Why has the White House been dragging its feet?

We know of no specific date or why there has been a delay in appointing the Commission other than the time-consuming nature of the appointments process. These are questions better left to the White House to answer.

C. What will be the criteria for choosing Commissioners -- participation in past political campaigns? Do you think there is a litmus test that says if you don't help the President get elected you cannot now help him govern? What are the criteria for selecting the Foundation's Board of Directors?

We do not know the criteria for selecting Commissioners. We would certainly hope that partisanship is not among them. Our own Board members are chosen on the basis of their demonstrated leadership in community service and commitment to the mission of the Foundation. In addition, we have formed a Board that is diverse in terms of occupation, age, race, and gender. Political affiliation does not enter into our selection of Board members, although we believe the current composition of the Board represents a variety of political views. It is our firmly held view that the Points of Light cause cannot be fulfilled if it becomes partisan.

(3) POINTS OF LIGHT INITIATIVES

A. What are the criteria for choosing Points of Light Initiatives? Are Points of Light Initiatives chosen through some sort of competition? If not, why not?

Points of Light Initiatives are broad, national, creative undertakings, done by others, that help to carry out the mission of the Foundation. Typically they are new efforts or very significant expansions of existing efforts that have been developed or enhanced in response to the Foundation's call for increased involvement in community service. As a general rule, the Foundation will not support Initiatives financially but will offer its expertise and nonfinancial resources, including its relationships with potential sources of financial support.

Initiatives fall into one or more of these three areas:

> Those that promote community service and mobilize people for community service;
>
> Those that build capacity of organizations to more effectively involve people in community service or that build the infrastructure of services required to promote and support effective community service;
>
> Those that address specific problems.

Initiatives are created either by direct action of the Foundation that results in the creation of a significant new national effort -City Cares is an example of such a program - or in response to a request by others that their efforts be so considered - StarServe is an example of such a program.

Five initiatives have been approved to date:

> **One to One** is fully operational as an independent organization, seeking to stimulate expanded mentoring opportunities for young people and promoting youth entrepreneurial activities.
>
> **StarServe**, which promotes service by students in grades 4 through 12, was created through a collaboration of the Love Foundation and Kraft/General Foods. It is funded, staffed and operational.
>
> **Into the Streets** has been approved as an Initiative. Its work will culminate in a "day of service" by college students on November 1, 1991 which hopefully will lead them to an ongoing commitment to service.

City Cares has been conceptualized and presented to Coca Cola for funding and other support, which Coca Cola has agreed to provide. It will lead to adaptation of the "DC Cares" model in other cities nationwide, engaging young professionals in a wide variety of community service activities.

Junior Achievement's K-6 Program will combine their traditional emphasis on giving students a progressively better understanding of the relationship between learning and economic success with a focused approach to helping urban school children during the vulnerable early years of their education.

The concept of Initiatives was born from the recognition that, in order to fulfill its mission, the Foundation must engage the energy and resources of a wide variety of other organizations. By leveraging our leadership position, we can cause to happen new efforts that otherwise would not be undertaken.

The criteria for selecting Initiatives include:

Designed to stimulate increased community service addressed to serious social problems;

Consistent with other aspects of the Foundation's overall mission and program activities; degree to which it extends or supports those activities;

National in scope with potential to have a significant impact;

Built on creative, innovative approaches to community service that are sound and of high potential to succeed;

Able to benefit from Foundation expertise and resources;

Commitment to building diversity in community service;

Well managed and financed; or, in the case of a new organization, demonstrated capacity of founders and likelihood of funding.

Initiatives have not been identified or designated through a competitive process. Rather, they have grown from ongoing interactions between board and staff of the Foundation and a wide variety of people engaged in community service who have identified opportunities and possibilities. For the foreseeable future, that process is likely to remain in place. Initiatives are not prizes to be conferred in head-to-head competitions but, rather, mutually beneficial relationships that result in the creation of significant new national efforts that, in turn, contribute to achievement of the Foundation's mission. The development of each Initiative requires the commitment of staff resources by the Foundation to assist, as required, in the program development process and to maintain appropriate ongoing oversight and quality assessment.

B. What does it really mean to be a Points of Light Initiative? What impact does the designation have?

The impact of designation as an Initiative varies widely, depending on the Initiative and the organization involved. For some, designation is tantamount to a "seal of approval" that helps to establish their credibility and thus may enable them to build the support they require to succeed. For others, the designation is a reflection of the effort made by the Foundation to assist in conceptualization, planning and implementation of an initial idea, including, in some cases, assistance in obtaining funding.

(4) YOUTH ENGAGED IN SERVICE

A. If this is one of your highest priorities, why isn't it getting a greater piece of the budget?

Youth Engaged in Service (YES) has just initiated start up activities, with a Vice President for the mission area having been hired recently. A smaller amount of funds has been designated initially for the program to support the final planning stages and pilot activities. As full implementation gets underway a greater amount of resources will be targeted specifically for YES.

Prior to this start up phase, the Foundation has taken advantage of significant opportunities that have become available in the form of Points of Light Initiatives. StarServe and Into the Streets are reaching out extensively to youthful populations, in elementary through high schools, and colleges and universities, respectively. Both of these Initiatives represent responsible and strategic investments for the Foundation, basically requiring only advice and expertise, with the promise of considerable return in the form of national impact.

B. You are currently spending $50,000 to identify creative nontraditional approaches to engaging youth in service. What has been the result of that effort--what are some of the approaches the Foundation has been able to identify?

The Foundation has collected a great deal of information about programs that involve youth of all ages, addressing a myriad of social concerns, and through a variety of avenues. Some are based in educational institutions, youth serving agencies, or exist independent of any formal organizations. Other approaches which have been identified include strategies that institutions, organizations, and corporations have adopted which encourage and support the engagement of youth in service. Descriptions of three very creative and successful approaches which we have been identified and highlighted during the past year follow:

> City Year is modelled as a domestic Peace Corps for the city of Boston. It was developed in 1988 by two recent graduates who have a commitment to the diversity of corps members and a tremendous amount of entrepreneurial spirit. City Year began as a three month summer program where one hundred young people spent three months on community service projects in the Boston area. It has expanded during 1989-90 to a 9 month program in which young people, ages 17-22, work on community projects full-time while they gain job skills, a strong sense of community and commitment to civic involvement. Many of the corps members apply to college or get their GED while participating. The program has generated significant corporate support.
>
> Magic Me in Baltimore motivates and educates at-risk youth by engaging them in service to the elderly, mentally retarded and handicapped. Weekly visits include recreation, physical fitness, tutoring and field trips. Once a month, young people meet at school with a Magic Me leader to discuss and reflect upon

their experiences. The reflection sessions include workshops on life skills, leadership development and career exploration. In 1989-90, 694 students performed 11,836 hours of service. This program has also inspired a course at the University of Baltimore to train undergraduates as group leaders, an 8 year evaluation of the program, and many other adaptations of the program in different cities and countries.

Students for Appalachia at Berea College in Kentucky provide sorely needed services to the people of Appalachia. Students provide social outreach services for the elderly, tutor children with learning disabilities and provide comfort and friendship to terminally ill people through a local hospice. One student in the program created a day camp for economically disadvantaged children, and a recycling project to teach young children about the importance of conserving precious natural resources.

C. You plan to continue this effort in FY92, and are requesting $50,000 for it. Please describe how you plan to target the funds.

The viability of YES depends on its ability to collect the best ideas from throughout the country and encourage their adaptation by others. YES staff will collect and also solicit submission of information on an ongoing basis. In addition, YES Ambassadors working at the state and local levels will collect information from the field. Formalizing the collection procedure so that information can be transmitted in a consistent and coherent manner will be a top priority. The Foundation will translate the wealth of knowledge gathered into a format for easy dissemination, including printed and potentially audio visual materials. The distribution will involve audiences that could play key roles in initiating or supporting similar programs and strategies. Some of the programs identified will be selected as potential sites for YES Fellowships which will result ultimately in their replication in other regions of the country.

(5) PRIVATE SECTOR CONTRIBUTIONS

A. POLF is requesting $7.5 million in FY 92. To satisfy the 25% matching requirement in the law, you must come up with $1.875 million from the private sector. Raising $1.875 million amounts to an 83% increase above the amount received from private sector contributions in FY 91 ($1.025 million). Is this realistic?

We fully expect to raise the required match of $1.875 million. While this represents a significant increase over FY 91 contributions, all the money we have raised to date -- including both actual contributions and pledges for this year and next -- has all been secured without benefit of a formal fund-raising strategy during the first four months of our existence as a fully operational organization. We are currently working on such a strategy and expect to begin implementing it in June. We believe that with a well-thought fund-raising strategy in hand, we should have relatively little difficulty generating the extra $900,000 that will be needed, on top of current pledges of approximately $1 million, to provide the match for FY 92.

B. If you do not receive the full $1.875 million, what will be the impact on your planned activities? What activities would you cut first?

We would either apply the deficit across-the-board or decelerate our roll-out of the new programs and activities outlined in our budget justification.

C. Do you have any commitments from the private sector yet for FY 92 contributions? If not, what was your estimate based on?

We have received solid pledges totalling $1 million.

D. Is there a cap on the amount the Foundation can receive from any one donor?

As a matter of policy, we have not yet instituted a cap, but we may consider doing so in the future. Under no circumstances, do we intend to jeopardize our status as a publicly supported organization under federal tax law by depending excessively on a single private source.

(6) INTERNATIONAL ACTIVITIES

A. Don't you think it's premature to be getting into international activities? Don't we need to get community service entrenched at home before venturing abroad? Aren't you getting into the Peace Corps' area?

Since early in the conceptualization of the Foundation, there has been a stated intention to develop an International mission which would in some way extend the programs of the Foundation beyond our borders. During development of the initial strategic plan, however, only perfunctory work was done on this mission. Since then, there have been expressions of interest on the part of several board members in developing this area. Likewise, initial discussions with other organizations, both here and abroad, suggest that there is strong interest in our involvement and a variety of opportunities that may be available to us.

There are four areas of activity that we will consider as we move forward to develop a plan:

> Fostering the development of indigenous community service in other countries;
>
> Americans volunteering abroad through private sector organizations and programs;
>
> Americans volunteering here in activities that have an international impact;
>
> Non-Americans volunteering in the United States.

While it is true that we have a more fully developed voluntary sector and community service infrastructure than any other nation, volunteering and community service are not a strictly American phenomena. There are forms of community service that can be found in virtually every culture, every society. Expansion of community service is being viewed today worldwide not only as a viable strategy for problem-solving but also as an essential ingredient in democratization and development of free market economies.

There are five key rationales for the Foundation to undertake an International mission:

> First, the United States has a great deal of expertise to offer in the development of effective community service activities and a breadth of resources that are not available elsewhere. That expertise is in great demand worldwide. This is one export that virtually everyone seems to want. It also is an export that, when delivered appropriately, can build international bridges of understanding and cooperation.

Second, the nature of the problems we face are increasingly global - substance abuse, exploitation and abuse of children, homelessness, poverty, AIDS, etc. - and can benefit from global exchange and mutual learning.

Third, there is a great deal that we can learn about how community service happens in other cultures that will be transferable to our increasingly multi-cultural nation; and, there is a great deal we can learn about grass-roots approaches to problem-solving that we may be able to adapt to local situations in this country.

Fourth, a relatively small investment in this area can have a tremendous impact by building local capacities for leadership and management and by building on the growing interest expressed by US-based corporations and foundations to assist in this area.

Fifth, there has never been a better time to do this. Interest is high worldwide and possibilities abound to have both immediate and long-term impact in other countries while benefiting community service efforts within the United States.

The Foundation also occupies a unique niche in that it appears to be the only U.S. organization primarily focused on community service as an essential function of community problem-solving that has interest and potential capacity to work in this area.

The work of the Foundation will be significantly different than that of the Peace Corps which exists primarily to engage U.S. citizens as stipended volunteers in U.S. Government-sponsored service programs abroad. The Foundation will directly run no programs, recruit no volunteers for international work. Rather, it will seek to bring U.S.-based resources into play in support of private sector community service efforts abroad and of the development of indigenous community service efforts in other nations. It will act as a creative catalyst, broker and linker to encourage others to initiate new efforts or to expand existing ones.

(7) POINTS OF LIGHT REPRESENTATIVES

A. How much guidance does the Foundation provide to organizations as to what this person's role should be?

The Foundation has provided a brochure which describes the role, gives examples of what actions the Representative can take to engage more of the members of their organization in community service, gives examples of what other individuals in a wide variety of sectors are doing in their organizations, and suggests organizations to which representatives can turn for more extensive assistance and advice.

The Foundation is working intensely with Volunteer Action Centers in three cities -- Houston, Memphis, and Pittsburgh -- to recruit representatives and help local organizations define the role of their Points of Light Representatives in those cities. The Foundation is working with those centers to develop training and information materials for Representatives. The three cities are a pilot effort which will provide models for the Foundation to roll out to other cities across the country.

For Points of Light Representatives in nonprofit groups, the Foundation is working with an advisory board of 23 Points of Light Representatives, representing a broad spectrum of national nonprofit organizations, to develop job descriptions and services for the nonprofit Points of Light Representative network.

The Foundation is producing several publications that will help Points of Light Representatives in their roles. "People with a Purpose -- Solving Serious Social Problems" illustrates how individuals have started their own community service projects and key success factors for doing so. For businesses, the Foundation is developing a text "How to Encourage Employee Involvement in Community Service."

B. How do Points of Light Representatives coordinate with each other and the Foundation? What mechanism assures that regular coordination takes place?

In the three pilot cities, Points of Light Representatives coordinate their activities through the Volunteer Action Center and through the Points of Light Partnership. The Partnership is a local coalition of leaders, representing all sectors, whose goal is to elevate the level and effectiveness of community service directed at serious social problems within that city. In all three cities, the Partnership will help recruit and communicate with the Representatives. Representatives can find out about other representatives' activities through the Partnership, or through the Volunteer Center.

On the national level, the Foundation will communicate with representatives in several ways. There will be regular mailings, possibly including a magazine or polished newsletter which will feature outstanding examples of community service projects and programs as well as examples of what representatives are doing.

The Foundation also plans to develop a nationwide directory of representatives that will list representatives in all sectors.

C. How many organizations have already appointed representatives?

288 organizations have appointed representatives. These include nonprofits, businesses, religious institutions and civic groups.

The results from the following recruitment activities are not yet in:

Several national nonprofits have sent letters of recruitment to their affiliates, including: Kiwanis, Junior League, American Red Cross, Duke Alumni, National Health Council, Catholic Charities and Knights of Columbus.

In Houston, letters and calls have been issued to 3000 churches, 250 schools, 400 civic groups and service clubs.

A letter has been sent to the Fortune 1000 companies asking them to be "Points of Light Companies," which includes designating an official as Points of Light Representative.

D. Provide some examples of the type of activities the representatives are currently involved in.

Since we have only begun recruiting Representatives, and want to make sure that the supports necessary for them to be effective are in place, the volume of activity is not yet at a significant level. However, some Representatives have taken action. Examples include the following:

A representative in a law firm in Houston convened a meeting of the managing partners of 60 major law firms and discussed how they could apply their distinctive skills and increase their level of involvement in community problem solving.

A representative in a Pittsburgh bank (which didn't have a formal community service program) organized employees to volunteer their time to paint and renovate a community day care center.

A representative from the Navy recruited 18 area coordinators at major Navy installations throughout the country to be Points of Light Representatives.

(8) MEDIA CAMPAIGN

A. Your media campaign began just one month ago. What has been the response so far? How many inquiries have been received to date and has this level of response met or exceeded expectations? What sorts of groups have expressed the most interest -- Businesses? Churches? School Kids?

On April 15, 1991, the Points of Light Foundation introduced a national public service advertising (PSA) campaign promoting community service on network television. One week later, on April 22, 1991, the Advertising Council, Inc. and the Points of Light Foundation began mailing media kits to 22,484 television, radio, and newspaper outlets nationwide.

According to the Advertising Council, 20,236 media outlets (92%) have received the Foundation's kits to date. They estimate that all media kits will be delivered by June 10, 1991. Initial reports indicate that many stations are integrating the campaign into their PSA rotation.

To augment the Advertising Council's distribution, the Foundation has conducted visits with television, radio and newspaper representatives in ten cities (Chicago, Memphis, Ft. Lauderdale, Kalamazoo, New Orleans, San Antonio, Dallas, Houston, Austin and Pittsburgh). Thus far, the Foundation has individually met with 86 affiliate and/or independent stations and 19 newspapers in these markets. Additional meetings are scheduled in New York (6/5-6) and Memphis (6/11-12).

The Foundation's television campaign has also been localized in eleven markets: Memphis, Houston, Cincinnati, Kansas City, Missouri, New Orleans, San Antonio, Chicago, Pittsburgh, Kalamazoo, Fort Lauderdale and San Francisco. These PSAs include the phone number of the local volunteer centers which will refer callers to local opportunities for community service.

In addition to the PSA campaign, the Foundation, in conjunction with the Coca-Cola Company and Transportation Displays Inc., has carried out a national print campaign and a six-week, 25-city outdoor advertising effort to promote literacy programs.

The cities targeted for transit/outdoor advertising are: Atlanta, Buffalo, Charlotte, Chattanooga, Chicago, Columbus, Dallas, Ft. Lauderdale, Greensboro, Knoxville, Los Angeles, Memphis, Miami, Minneapolis, New York City, Trenton & Newark, N.J., Philadelphia, Phoenix, Providence, San Francisco, Toledo, Washington, D.C., and Winston-Salem. It is estimated that 50 million Americans, or one out of five, will be reached by the transit/outdoor campaign.

These national campaigns feature a toll-free telephone number that people can call to receive information about volunteer programs in their areas. Thus far, the Foundation has received 3,478 responses to its ads.

The Foundation's long-term media goal is to generate $1 million a day in donated time and space. The Advertising Council estimates that we are currently receiving $200,000 per day in free media nationwide. This figure, which exceeds the norm for new public service advertisers, translates to roughly 35 million gross impressions each day.

B. You are requesting $50,000 "to support the development of other ways in which the media can participate in conveying the Foundation's message." What exactly is meant by this -- how do you plan to spend those resources?

These resources will be used to facilitate our access to people in the media by supporting meetings of key media leaders, use of consultants who know the media business, development of materials to help the media understand the importance of community service, and possibly other means of cultivating relationships. To make service a central part of popular culture, it is critical that we finds ways in addition to advertising to convey the service message through the media, given the critical influence it exercises today on public attitudes.

(9) OUTREACH

A. Your outreach program is conducted in cooperation with United Way of America and the National Volunteer Center. What are these organizations' role? Exactly what is the relationship between those groups and the Foundation? Do you provide grants or other financial assistance to these organizations?

The role of United Way and the National Volunteer Center in working with the Outreach program is to advise the Foundation on its corporate outreach strategy. Individuals from both organizations have been designated as part of a working team to develop the strategic and operational activities that the Foundation will undertake to stimulate and support the increased involvement of corporations in community service. Those working team members will also help with the Foundation's research of companies to determine what impediments exist that prohibit corporations from getting more involved in community service, and how those impediments might be overcome.

Thus far, the relationship between the three organizations with regard to the corporate outreach effort is purely voluntary -- the Foundation does not provide grants or other financial assistance.

For local outreach, the Foundation has been working with Volunteer Centers to develop Points of Light Partnerships and recruit and support Points of Light Representatives. The Foundation has begun this in three cities, with the intention of working with 7 other pilot cities by the end of the year. The

Foundation has provided financial assistance to the Volunteer Centers in these cities totalling approximately $130,000 to support their outreach work on our behalf. The Foundation has also purchased consultation from both United Way of America and VOLUNTEER in carrying out this program.

B. You are requesting $2.1 million for your outreach program -- an increase of 50%. It is unclear how you plan to spend the additional resources. Please explain.

The additional resources requested for the outreach area (approx. $700,000) will be spent on the following:

> $125,000 will go toward materials that will recruit and support Points of Light Representatives. We intend to produce educational materials, a magazine or newsletter, direct mail support, and training material.

$575,000 will be used to support development of Points of Light Partnerships in communities around the country. The Foundation's experience to date in the three pilot cities indicates that there is an opportunity for many communities to benefit from Partnerships.

C. Provide some examples to illustrate that your outreach program is working.

Since recruiting Points of Light Representatives is part of our outreach effort, our response here is slimilar to our response to question (7) D.: namely, owing to the fact that we are only in the earliest stages of this work, substantial results have not yet been obtained. However, some noteworthy examples have arisen:

Major city leaders in Houston, Pittsbrugh and Memphis have been recruited through the local Partnerships, bringing recognition and a dramatically increased awareness of the importance of community service. Those leaders include the CEOs of Exxon and Shell; the President of Baylor College; Dan Rooney, the owner of the Pittsburgh Steelers. Other leaders in these communities with influence, reach and talents are being attracted to the movement through our Partnerships.

15 major corporations from around the country have signed on as "Leadership Companies" and have agreed to increase their level of, and commitment to community service as well as help the Foundation reach out to other corporations around the country.

23 representatives from national nonprofits with thousands of affiliates have agreed to work with the Foundation

as an advisory board and to reach out with information and services to Points of Light Representatives around the country. Many are enthusiastic about joining us to develop local Partnerships.

The Kellogg Foundation will participate in a joint initiative with the Foundation to promote family volunteering.

(10) IDEA BANK

A. Which organizations currently are repositories of this sort of information? Why do we need this idea bank if the information is already being collected?

We have conducted a review of organizations and individuals involved in community service to determine the existence of other repositories for information on ideas and programs that work. While the United Way did compile a data base on community service programs, this system became defunct in December 1990. This system was built upon the Private Sector Initiatives data base created in 1982. In the final analysis, the data base became so large as to be unruly and of little utility to those seeking information on quality programs. Because of its size, information could not be properly tracked, updated or eliminated when necessary. It is our intention to avoid this problem by focusing on quality community service ideas and programs which will be updated on a regular basis. In addition to the defunct United Way system, there are other repositories of information which tend to be issue specific, e.g.,Handsnet is an electronic network which offers its subscribers information on human service issues. Other systems have information on community service initiatives but are for internal use only --

for example, the IBM data base on their own corporate initiatives. While it is possible that we will be able to draw upon these data bases, it is clear that the proposed POLF idea bank, ServLINK, will be unique and provide a valuable resource for internal and external users.

B. How will you go about collecting the information -- will it be provided to you through the Points of Light Representatives?

Information for the data base will be collected from several sources. The first source of information will be the Points of Light staff who are knowledgeable about ongoing community services ideas and programs nationwide. A second source of information will be the Points of Light Representatives many of whom will be directly involved with volunteer initiatives in their community. Other sources of information will be provided by the Office of National Service in the White House, corporations, Volunteer Centers, and individuals who are active in community service programs. These programs will be reviewed by a committee comprised of POLF staff and selected outside representatives to select outstanding programs which are worthy of replication. The information will be maintained by POLF staff and users, who will be expected to update their entries on a regular basis. This maintenance will be controlled and monitored, utilizing proper security and reporting methods.

In addition, ServLink may configured to provide a Bulletin Board System (BBS) to enable users to communicate interactively. More specifically, the BBS would permit POLF staff and representatives to exchange ideas, hold conferences and communicate concerns about their respective activities. It would also provide a vehicle for the Foundation to communicate with its constituents.

C. How will you assure the Bank is a comprehensive as possible?

It is our intention that ServLink be comprehensive on a selective basis. It will be a repository of outstanding examples of community service -- not merely a data dump for all community service ideas. It is our understanding that clearinghouses often fail because they seek to be all inclusive rather than selective. The goal will be to ensure that those programs which are selected as outstanding and worthy of replication are, in fact, exemplary community service ideas that work. Because our intention is to promote the best programs nationwide and not to be a passive source of information, the data base will be updated on a regular basis.

D. Who would use the Idea Bank? Where would the Idea Bank be physically located and how would an individual go about accessing the information?

The potential users for the Idea Bank will include POLF staff who will be able to use it as a tool to educate themselves and others about outstanding community service programs. In terms of external users, POLF representatives, Volunteer Centers, corporate education leaders, and others will be able to access information about programs and/or other outstanding initiatives that have been implemented to address serious social programs. The Idea Bank would be physically located at the Foundation and individuals would be able to use a modem or voice to access data. Every effort would be made to ensure maximum access and use outside the Foundation. In addition, we fully intend to cooperate in the development and operation of the four regional clearinghouses required by the National Service Act.

E. How will you advertise the availability of the Idea Bank to ensure people use it?

The Foundation will utilize print campaigns to reach out to core audiences, i.e, POLF representatives, Volunteer Centers, corporate leaders and individuals interested in community service ideas that work. The ads will be benefit-oriented and will demonstrate the application of ServLink to the potential user. The ads will appear in vertical publications, selected Electronic Bulletin Boards, and other related publications. In addition, we will inform our potential constituents by sending out information in mass mailing campaigns conducted by other organizations that promote community service, i.e., the United Way, the Volunteer Centers and the American Red Cross.

(11) BUDGET REQUEST

A. You are requesting $6.75 million for "Other Services". (p.11) There is no explanation of what is included in this category, which makes up 72% of your budget. Please explain this black hole.

The "Other Services" category in our "Obligations by Object" chart refers to all nonadministrative costs or what we refer to in the "Justification" section of our budget submission as program costs. For FY 92 it includes: $1.150 million for media leadership (principally production and distribution of additional and revised advertising and maintenance of the fulfillment/respond system), $1.650 million for our outreach program (principally development of networks of Points of Light Representatives and local Points of Light Partnerships), $900,000 for youth engaged in service (principally implementation of Points of Light Ambassadors, Fellows, and Youth Leadership Forums programs), $100,000 for seniors engaged in service (principally support of outreach to seniors organizations), $200,000 for the national idea bank, ServLINK (principally design, testing, and implementation of the system), $2.301 million for a significant replication program (principally development and start-up of activities to identify and adapt for use elsewhere creative, effective service initiatives), $150,310 to support international activities, and $300,000 for recognition programs (principally development and implementation of national awards programs).

B. You are requesting $156,000 for travel -- an increase of 30% over the current year. Why is such a substantial increase necessary?

There are two reasons for the increase. First, one of our primary modus operandi is to develop relationships with people and organizations around the country who are able to mobilize others for service. In the early going, when these relationships are being established, face-to-face contact is necessary much of the time to create rapport, and that can only be done by having our staff, Board members, and consultants travel to meet with those who can help us accomplish our objectives. Second, the current year is not a good indicator of the amount of travel we expect to do during an average year. We only became fully operational in January 1991, and many senior staff -- those most likely to need to travel for their jobs -- did not come on board until late winter. Thus, we will not do as much travel in the current year as we will in FY 92, when most of our key programs and staff will be firmly in place.

C. Your average salary is more than $50,000. This seems quite high. Please provide a description of all staff positions requested and associated salaries.

A list of staff positions and salaries is attached.

POINTS OF LIGHT FOUNDATION STAFF

EMPLOYEE	TITLE	SALARY
Alfa, Samuel A.	Research & Finance Director	31,350
Allen, Kenn	Senior Consultant	80,000
Austin, Virginia T.	Director of Nonprofit Outreach	55,000
Barlow, Claudia B.	Director of Development	67,000
Bland, Patricia A.	Vice President, Outreach	95,000
Day, Lara A.	Staff Secretary	19,200
Day, Renee M.	Receptionist	19,000
Hanlon, Timothy D.	Director of Media Marketing	60,000
Hammock, Monica L.	Office Manager	27,000
Hayes, Lois R.	Staff Secretary	22,000
Hinds, Mary E.	Director of Volunteers	30,000
Krinzman, Melissa E.	Outreach Coordinator	24,000

LoBello, Pamela T.	Staff Secretary	19,200
Lohman, Barbara L.	Director of Public Relations	70,000
Martin, Claire P.	Director of Older Americans	48,000
Quilty, Catherine R.	Staff Secretary	19,200
Racine, David P.	Executive Vice President	105,000
Schubert, Richard F.	President & Chief Executive Officer	185,000
Supple, Chuck J.	Vice President, YES	60,000
Timmins, Carolyn L.	Outreach Coordinator	25,000
Wolf, Maura	Youth Services Coordinator	24,000

SUBCOMMITTEE RECESS

Senator **Mikulski**. Well, again, we thank you for your participation. This subcommittee will now stand in recess until Friday, May 17, at 9 a.m., when we will take testimony from outside, or otherwise referred to as public witnesses, on the fiscal 1992 budget.

This hearing will take place in Dirksen 138, right here.

Thank you. The committee is in recess.

[Whereupon, at 2:25 p.m., Wednesday, May 15, the subcommittee was recessed, to reconvene at 9 a.m., Friday, May 17.]

DEPARTMENTS OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT AND INDEPENDENT AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1992

WEDNESDAY, JUNE 5, 1991

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 2 p.m., in room SD–138, Dirksen Senate Office Building, Hon. Barbara Mikulski (chair) presiding.

Present: Senators Mikulski, D'Amato, Garn, Bond, Lautenberg, Leahy, Nickels, and Kerrey.

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

STATEMENT OF JACK KEMP, SECRETARY

ACCOMPANIED BY:
- **ALFRED DELLIBOVI, DEPUTY SECRETARY**
- **ARTHUR HILL, ASSISTANT SECRETARY FOR HOUSING, FEDERAL HOUSING COMMISSIONER, AND ACTING PRESIDENT, GOVERNMENT NATIONAL MORTGAGE ASSOCIATION**
- **MICHAEL JANIS, GENERAL DEPUTY ASSISTANT SECRETARY FOR PUBLIC AND INDIAN HOUSING**
- **ANNA KONDRATAS, ASSISTANT SECRETARY FOR COMMUNITY PLANNING AND DEVELOPMENT**
- **GORDON MANSFIELD, ASSISTANT SECRETARY FOR FAIR HOUSING AND EQUAL OPPORTUNITY**
- **PAUL ADAMS, INSPECTOR GENERAL**
- **JOHN WEICHER, ASSISTANT SECRETARY FOR POLICY DEVELOPMENT AND RESEARCH**
- **JIM E. TARRO, ASSISTANT SECRETARY FOR ADMINISTRATION**
- **MARY BRUNETTE, ASSISTANT SECRETARY FOR PUBLIC AFFAIRS**
- **IVAN RANSOPHER, ACTING ASSISTANT SECRETARY FOR LEGISLATION AND CONGRESSIONAL RELATIONS**

OPENING STATEMENT OF SENATOR MIKULSKI

Senator MIKULSKI. This subcommittee will come to order.

This afternoon we, once again, welcome Secretary Jack Kemp for his fourth formal appearance before this subcommittee since his appointment as Secretary of Housing and Urban Development.

Today, our focus is on the Department's 1992 budget request for an appropriation of $24.5 billion in new discretionary spending. This would be an increase of $1.3 billion, or about 6 percent over last year's final appropriations level.

Much has happened since the last time we met, Mr. Secretary, in the world of Federal housing policy. I know that we are looking forward to implementing a new housing authorization bill whose goal is to forge new partnerships between Government, the private sector, nonprofits, and neighborhoods so that we can conquer homelessness and poverty by expanding the supply of affordable housing for American families.

We authorized $4 billion in new spending for housing in the Cranston-Gonzalez Act. Yet, the budget agreement limits growth in new discretionary spending to only $10 billion. That means, quite frankly, not all the ideas we had hoped for in passing Cranston-Gonzalez will get funding in the fiscal year. We know that you played a very important role in negotiating those.

The House Appropriations Committee on the 1992 VA–HUD bill finished earlier this week. The House terminated the space station and provided only small amounts for HOME and HOPE which indicates just how tight money is this year.

Later on this afternoon, all of the subcommittees will get their 602(b) allocations. We have already been signaled as to what our allocation is. Without telling tales until the full committee meets, it is going to be really tight.

Now, Mr. Secretary, during the urgent supplemental, I pledged to you that we were going to start both HOME and HOPE in 1992. I want to keep that pledge. The purpose of going through many of our questions today will be to formulate the priorities and the amount.

We happen to believe that the Government closest to the people governs best. That is why we like the HOME Program and its potential to write a new chapter in public-private partnerships. We also like HOPE because it provides opportunity and it provides empowerment. We are ready to do that.

As we go through our questions, we want to talk about the true cost of preserving the existing housing stock, not only those who are at risk, but also the section 8 renewals. We look forward to finding out what you estimate to be the true cost. We want to know what you think is the right mix of funds for new initiatives under the Affordable Housing Act.

Third, we look forward to your ideas at what levels should the tried and true existing programs like CDBG and elderly and handicapped be continued. I know we look forward to dealing with the housing crisis, helping middle-income families, with the increasing number of homeless and rising cost to preserve existing housing stock.

So, we look forward to working with you to accomplish these priorities. We look forward to your testimony. I am now going to ask Senator Garn for any comments he would like to make.

Senator **Garn**. Thank you.

Mr. Secretary, I would like to welcome you as one who has participated in this process for a number of years and has now chosen to move on to other pursuits. I really find your enthusiasm both refreshing and inspirational. I think you have proven that, indeed, there is life after Congress.

Secretary **Kemp**. After football.

Senator **GARN**. I would really like to know where you got that tan?

Secretary **KEMP**. Utah. [Laughter.]

Senator **GARN**. Well, when I am there, there is not enough sun to go around. Frankly, I am looking forward to a greater geographical move from the Hill down to downtown DC, but your example is still noteworthy.

Secretary **KEMP**. Thank you.

Senator **GARN**. Moreover, it is a clear signal that our contributions to our Nation are not simply measured by yours and the congressional trenches, but rather what we as individuals can do to realize some meaning and significance to our efforts.

As legislators and individuals, we have been given the responsibility to make our own choices. The pressures on our political system and the constraints on our budget have made for some very difficult decisions. Your budget, which is now before us, makes some of these choices very clear.

PROGRESS IN HOUSING FUNDING

While I recently made a very significant decision governing my own personal life, I find that what you present is no less challenging. As one who has been intimately involved in budgetary resource decisions for Federal housing programs for a decade and a half, it has been very aggravating for me to listen to those who claim that we have made dramatic cutbacks. In point of fact, the exact reverse had been the case.

The Federal Government today expends more than three times the amount on low-income housing annually than was the case in 1980. While in the early 1980's I sought to formalize a Federal policy of increasing the numbers of new assisted rental and homeownership units by an additional 100,000 per year, the most recent statistical data shows that we have added an average of 147,270 federally subsidized units each year between 1980 and 1990.

Today, there are more than 5½ million rental and home ownership units under Federal subsidy, an increase of 38 percent since 1980. Far from the charges that we have gutted, dramatically reduced, or even moderated the Federal commitment to housing; we have greatly expanded it.

It certainly no longer amazes me that public perceptions can be so off-base and wrong. While I am frustrated by this misperception, I do understand that it is fueled by the very visible and tragic plight of homeless individuals and families on our streets and the seemingly endless problem of waiting lists for those who seek assistance.

CONSTRAINTS ON HOUSING ASSISTANCE

In point of fact, although we are doing much more to help, the need for help has grown faster than our increases. Housing is a basic necessity of life. It is also expensive. Its rising costs are forcing even greater numbers of American families to seek governmental assistance. Sadly, many of those who are lucky enough to obtain assistance are not weaning themselves from that assistance to make room for others.

Mr. Secretary, I must admit that I have some questions about your home ownership initiatives and whether they can solve the problems. But I also know that within the budgetary constraints confronting this subcommittee and all Federal programs there simply is not enough money to do all that we would like to do.

So, it is absolutely critical, I believe, that our existing subsidized housing inventory be managed in the most efficient manner that we possibly can. I think it prudent that we explore any promising approaches to more effectively address housing needs within the budgetary limits imposed on us.

HOPE and HOME by themselves may not be the answer, but I do think that they represent an alternative and an improvement over many of our current efforts which have not proven to be very effective. I look forward to your testimony and your justification for your budget request. Thank you.

Senator MIKULSKI. Thank you, Senator Garn.

TRIBUTE TO SENATOR GARN

You have been a terrific chairman of this subcommittee when it was your opportunity to do so and just an extraordinary ranking minority to work with. I was quite saddened for our committee to hear of your announcement. We are quite joyful for your family. The people of Utah have been lucky to have you.

Senator GARN. Well, thank you. I just hope my wife can stand me being home all of the time. [Laughter.]

Senator MIKULSKI. She has called me about that. [Laughter.]

Senator GARN. I hope our marriage will survive my additional time at home. Thank you. [Laughter.]

Senator MIKULSKI. Senator D'Amato, Senator Bond, do you wish any opening remarks?

Senator D'AMATO. Madam Chair, I, too, would like to join you in paying tribute. There will be lots of tributes, but you are still going to be with us for quite a while?

Senator MIKULSKI. A year and a half.

Senator D'AMATO. A year and a half. So, we will have to put up with him for awhile.

Senator GARN. Yes; you will have to put up with me for a year and a half so be careful what you say. [Laughter.]

Senator D'AMATO. But certainly Senator Garn has been outstanding in seeing to it that the Nation's needs as it relates to housing, as it relates to our space program, have been met. He is going to be missed. There is no doubt about that, but I have a feeling he is going to be spending a lot more time here than he might care to admit in his new endeavors. I know he is going to be here fighting for the things that he thinks are important.

RECOGNITION OF SECRETARY KEMP'S GOALS

With that, I would like to state that our Secretary, as Senator Garn has indicated, has fought for the things that he has felt are important. Empowerment of poor people to own their homes or to see that there is management, real tenant management. That is important.

His enthusiasm is important. It is contagious. It is good. It is good because not only does it have an impact, I think, on those of us at the congressional level to work with the Secretary, but it is important to the people out there in the communities to feel this and know that there is someone who is looking to make a difference.

I would hope that we can, talking about HOPE, find the resources to fund HOME and HOPE at the adequate levels. I introduced that legislation last year, as you had indicated you would look for funding this year. Here, we come into that process. This is the time now to, I think, convert some of those aspirations into fulfillment.

I think we can do it given the legislation, and given the proper resources, given the leadership that the Secretary is providing, I think we can make a real difference and a significant turn around.

Senator MIKULSKI. Senator Bond.

Senator BOND. Madam Chairperson, I would join in the commendation for our ranking member, the good words about our Secretary who is a champion for housing, but I will pass any further statement and wait until we get into the question and answer section to deal with a couple of problems that you and we face together and how we are going to deal with it. Thank you.

Senator MIKULSKI. Senator Lautenberg.

Senator LAUTENBERG. Thank you, Madam Chair.

COMPLIMENTS TO HUD SECRETARY AND RANKING MINORITY MEMBER

It seems that we are handing out accolades to two colleagues. One, the executive, and one on the legislature. I would like to add compliments to one of them. Then add my compliments to the other. [Laughter.]

First, we are dealing with two friends, Jake Garn. I promise Jake that I will, despite the fact that we will not be serving together, we will miss you. You have done a very good job for your State and your country. I promise that I will visit you every winter in Utah as I have done over the years.

Senator GARN. Just think how much better a skier I will be with the Senate not interfering with my skiing. [Laughter.]

Senator LAUTENBERG. Anyway, you are not going to talk me out of my seat that easily.

To Secretary Kemp, who I see on many good occasions and with whom I have some disagreements and some agreements. He is a man of principle. He sticks up for what he believes in. I look forward to the opportunity to engage in a couple of questions here. Madam Chair, I thank you very much for the opportunity to join you today. I have no further statement. Thank you.

Senator MIKULSKI. Senator Leahy, do you have anything to say?

RECOGNITION OF SENATOR MIKULSKI'S LEADERSHIP

Senator LEAHY. Madam Chair, I will put my full statement into the record. I just want to commend you for your leadership in housing and community development, especially with things like housing preservation, community development block grants, and public housing.

You took a very small amount of money and stretched it out as far as it could go last year. I also want to thank the Secretary for his active and personal involvement in this. One of the things I do is I rate Cabinet members two different ways.

I find those who have served in the Congress before are the ones who will return phone calls and will take an active interest. They will either give you a yes or a no which is all you want really. You want to know where you are going. You, Mr. Secretary, have done that especially.

You have assisted on two very important Vermont housing preservation projects: the Northgate Apartment complex in Burlington and the Highgate Apartments in Barre. I want you to know—and this may be very devastating to you to hear this happened and especially in a good Republican State like Vermont—I praised you highly in both places. I visited them both with John Romano from my staff.

The rest of my statement, Madam Chair, I will put in the record because I have to go to another hearing. I would also ask if I also might have permission to put some questions for the record.

Senator MIKULSKI. Without objection, it is so ordered.

[The statement follows:]

STATEMENT OF SENATOR LEAHY

First, I want to commend our chair, Senator Mikulski, on her strong leadership in the area of housing and community development in fiscal year 1991. With very limited resources in a challenging bill, Barbara, your work was extraordinary—especially in the housing preservation, Community Development Block Grant and public housing areas.

Fiscal year 1992 presents new challenges and demands in these three areas, and many more. I know that you are up to the task—although I don't envy the decisions you must make on the confusing new acronyms, HOME and HOPE.

Mr. Secretary, it is good to see you again. I want to thank you right off for the active, essential role the Department has played in two important Vermont housing preservation projects—the purchase and rehabilitation of the 336 unit Northgate Apartment complex in Burlington, VT, and of the 120 unit Highgate Apartments in Barre, VT.

I have visited both complexes, and am mightily impressed. Both projects are the work of local nonprofit development groups, with great support from housing experts around Vermont. Both feature active resident involvement—I believe that both the Northgate and Highgate residents wrote to you more than once over the past three years.

In neither project is there sufficient funding for residents to take ownership over the short term. But ownership by residents is a long term option. And shorter term, residents could not be more pleased, because they have a role in how their homes are improved, who owns them, and how they are maintained. It is an inspiring prospect for them.

The Department has a right to be proud of its substantial role in these two housing preservation projects. I certainly am proud of the many Vermonters who pulled them off. It is my understanding that these are two of fewer than 20 such preservation projects that have merited Department approval thus far, though many more are in the works. I hope that many more will be approved, nationwide.

I won't talk on for as long as I could about these two extraordinary achievements for nonprofit developers and low-income residents. But I will say that if you are looking to visit two model rural-based housing preservation projects, with lots of resident involvement, you should consider visiting the Northgate and Highgate, which are just 40 miles apart in northern Vermont.

One last point on the Highgate project. The Department has thus far made some prudent financial commitments to the project. However, it has yet to release the $500,000 special purpose grant that was earmarked for fiscal year 1991—out of this subcommittee—for the project.

Those funds are targeted to energy conservation and other improvements at Highgate, and for building an important new community room. The City of Barre submitted the necessary documentation for the award to the Department in mid-March, 3½ months ago. Construction work started last week on the project. I would appreciate your looking into, and expediting, the award of this portant grant

Two. I have some additional observations and questions for you that arise out of my experience with the extraordinary Northgate and Northgate ventures. In these projects I see many of the elements that you have put forth as housing policy priorities, including:

—Development by non profit organizations;

—Resident participation in development and management and eventually, options for tenants to purchase the units, since short-term purchase by residents would be so costly;

—Extensive commitments of technical assistance from local and State government, and the private sector; and

—A varied financing package that is the product of a strong public-private, and local-State-Federal partnership.

One of the important Federal funding sources that helped make Northgate and Highgate possible is the Community Development Block Grant [CDBG] Program. CDBG funds are key, flexible parts of the financing for both projects. Without CDBG investments, the projects may not have happended.

I am very concerned that the administration's budget proposes a cut of about $300 million cut for CDHG, which would bring it about 10 percent below its current level.

VT local governments and affordable housing developers tell me that the CDBG Program really works—that it is flexible, can be used for both housing and economic development, and is often an important financing piece in public-private ventures.

I was a strong supporter on this subcommittee last year for adequate CDT funding, and will continue to be this year.

Question. Given the need and the proven track record, why is the administration seeking to cut CDN? why pull back on something that really works, especially when more applicants than ever now divide up the funds; when the number of eligible activities has expanded; and when the CDBG account has 35 percent fewer constant dollars than in 1981?

CDBG is an important source for not only housing but also economic development. You have been quoted as saying that you want to be known not as the "Secretary of Vouchers," but as the "Secretary of Urban Development" who helps create jobs. I hope the Congress will help you win this title by protecting and even expanding CDT funding.

Three. Finally, from my experience with the Northgate and Highgate projects I want to stress the importance of two additional initiatives which are before this subcommittee, and for which I know there is support in the President's budget.

One is the package of housing preservation measures designed to save affordable complexes—like Northgate and Highgate—from being lost from our Nation's housing stock.

The second is the HOME Investment Partnership Program, which is a product of the new National Affordable Housing Act.

I largely agree with the level of the administration's funding request for preservation. I know that Senator Mikulski is concerned with the Nation's housing preservation problems, and I look forward to working with her on this issue this year.

In terms of HOME, I appreciate the administration's request for start-up funding of $1 billion. In Vermont, where State and local governments have provided extraordinary support for affordable housing, and where there is a growing and productive network of nonprofit housing developers, the HOME legislation has been well-received. The program is designed well for the realities of housing need and production there.

Within the obvious budgetary limits we are facing, I plan to work with Senator Mikulski to provide funding as high as possible for HOME in fiscal year 1992. I urge the Department, Mr. Secretary, to continue to work with the congressional committees, and State and local governments, to bring this program on line as quickly and seamlessly as possible.

Question. In your estimation, is the Department on target with issuing regulations and working with States and municipalities toward the end of bringing the HOME Program—at a funding level of $1 billion or more—fully on line early in fiscal year 1992? Thank you for your consideration.

Senator **MIKULSKI**. Senator Nickels, we have just completed a round of opening comments, did you wish to make a statement?

Senator **NICKELS**. Madam Chair, no; I will pass, but I welcome the Secretary. I have had the pleasure of working with him on several projects as well as with you on improving some housing conditions in our State and across the country. I think we have made some good progress and I look forward to making further progress in the future.

Senator MIKULSKI. Well, thank you, Senator.

We are now going to turn to Secretary Kemp. It is really something to have so many of my subcommittee members here. Usually when I hold these hearings I feel like either the Lone Ranger, or Lonesome Dove, or somewhere in between. [Laughter.]

So, obviously you and the mission of your agencies are quite a magnet for the other Senators. So, let us hear what you have to tell us.

Secretary KEMP. Madam Chair, thank you.

SUMMARY STATEMENT

As the rabbi said, "Before I speak, may I say a few words?" [Laughter.]

I stole that from a seder that I attended at the Israeli Embassy on Passover. I thought that I would find an appropriate place to use it. Before I give my testimony, Madam Chair, may I pay my respects to your continuing leadership in the area of affordable housing and to your leadership on this subcommittee.

We have had our differences, but I particularly appreciate you, your integrity, your commitment to people, to their empowerment, and to their equality of opportunity which all too often is a dream, not a reality. So, this committee's mission is inextricably interwoven with that dream. I think that may be one reason why there are so many members here today.

It was a pleasure to be with you, Madam Chair, in Baltimore recently when we stood together with Jim Rouse and the mayor and watched housing for low-income people being built. Interestingly enough, they will own those homes. Your support for HOME and your support for HOPE is very much appreciated.

To Jake Garn, may I say with great respect and admiration that the country and both sides of the political aisle will miss your integrity and tenacity, and your perspicacity as well. That means vision of the future.

Senator GARN. Anybody got a dictionary? [Laughter.]

Secretary KEMP. May I say to Senators D'Amato, Bond, Nickels, and Lautenberg, thanks for your friendship and the bipartisan way in which we reach for those transcendent goals at this time in history.

INTRODUCTION OF HUD DEPUTY SECRETARY

Deputy Secretary Al DelliBovi is sitting to my right.

The passage last year of the Affordable Housing Act with Senator Cranston's name on it, Al D'Amato's name on it, your names, Senators Garn, Mikulski, Bond, the late John Heinz, was a landmark piece of legislation.

Madam Chair, our budget reflects not only the continuation of existing housing programs and our commitment to those programs as well as we believe adequate funding for both HOME and HOPE, notwithstanding the tough budget allocations for 602(b) under which you have to operate.

SITUATION OF LARGE PUBLIC HOUSING COMMUNITIES

Incidently, tomorrow I will be in Chicago at the Henry Horner Homes, the subject of a new book by Alex Kotlowitz of the Wall Street Journal. I am not selling the book, but I am certainly selling the idea behind the book which is this: If we do not do something radical and dramatic to change the conditions in large public housing communities in the United States of America, like the one Senator Bond and I visited at Cochran Gardens in St. Louis and many other parts of this country, we are not going to have any children growing up in public housing.

In fact, that is the name of the book, "There Are No Children Here." LaJoy Rivers, the mother of two teenage sons, said, "They are not children. They have seen more by the age of 9 than most of us have seen in a lifetime."

So, I come before you with humility, Madam Chair, but also with a sense of commitment to the President's budget which calls for $25.5 billion for the programs of HUD. I appreciated Senator Garn's perspective because frankly we are helping more people.

INCREASES IN HUD BUDGET

There is a 32-percent increase in funding for HUD in our budget from the 1990 budget. It does reflect some different priorities for housing, homeownership, community economic development, and it in my view, Madam Chair, reflects a dramatic new direction in housing policy as authorized overwhelmingly by bipartisan majorities in 1990—the National Affordable Housing Act.

GOAL OF THE ADMINISTRATION

We know that there is going to be a lot of give and take between the administration and the Congress on budget priorities. But as far as this administration is concerned, I know I speak for the President when I say there is one idea, at least one goal, that is not negotiable and you mentioned it.

It is expanding ownership; expanding opportunity; expanding empowerment of low-income people throughout urban and rural pockets of poverty through our HOPE, Homeownership Grant Program, for which we requested $855 million. Madam Chair, HOPE has three separate components: public and Indian housing homeownership, multifamily housing homeownership, and ownership of Government-held single-family homes.

I say with all sincerity, Madam Chair, that unless all three components are adequately funded—we know they are not going to be totally or unequivocally funded but—unless they are adequately funded, it is my view—and I speak for the administration—the appropriations bill will not be acceptable.

INTRODUCTION OF HUD STAFF

That is no threat. I appreciate the comments that have been made by the Chair and appreciate the relationship between the staffs of your committee as well as my staff represented here by my Deputy, Al DelliBovi; my Assistant Secretary for Policy Development, and Research, John Weicher; Assistant Secretary for Public Affairs, Mary Brunette; and Assistant Secretary for Housing, the FHA Commissioner Art Hill.

On my right is Gordon Mansfield, Assistant Secretary for Fair Housing. Herb Persil is the Director of the Office of the Budget. Paul Adams is here, our inspector general. Anna Kondratas is Assistant Secretary for Community Planning and Development.

HOPE AND HOME

I said that I was appreciative, Madam Chair, of your statements not only in Baltimore, but here today and also those during the debate. You have really encouraged us at HUD to get the regulations out, to do the hard work that would help us get ready for getting HOPE and HOME off to a good start.

We have said repeatedly that funding HOPE and HOME is both a moral as well as a political obligation. It would receive maximum priority in our 1992 appropriation budget request. I am sure that Congress is going to fund HOME.

I guess your statement earlier about helping us get a good start on HOPE meant a lot to me, not personally, but at least in terms of this administration's belief that we can expand low-income homeownership by at least 1 million between 1991 and 1992 with some adequate funding in the HOPE proposal.

I would like to see my testimony put in the record. I will summarize it, Madam Chair, by saying I really believe with all my heart that funding the HOPE Program can open up a second front in a war on poverty that has yet to be won.

SIGNIFICANCE OF HOPE

I believe that HOPE can make a fundamental difference in the lives of low-income families. I have seen it happen all over the country. I know there can be differences over funding. Differences over dotting "i's" and crossing "t's." There should be no difference between Democrat and Republican over the idea that when people own something, it changes attitudes, encourages productive behavior, combats despair, fights poverty.

QUEEN ELIZABETH AND MRS. FRAZIER

It, in no instance, can be a miracle. It is not a panacea, but it certainly is at the heart of the American Dream. I had the honor of introducing the Queen to Mrs. Frazier over on Drake Place.

It was one of the great moments in my 2 years at HUD. Mrs. Frazier hugged the Queen. Now, you are not supposed to hug the Queen, we are told. The British press asked her why she did it. She said, "It was the American thing to do."

Senator **Mikulski**. That is great.

Secretary **Kemp**. Then she said, "Your Highness, welcome to my palace." Her palace is so humble, but yet she owns it. She said, "Welcome to my palace." I do not know how many palaces the Queen has but I was really impressed that a woman owning her own home would invite the Queen in and say, "Welcome to my palace."

HOMEOWNERSHIP

It kind of captures the spirit behind our democracy. It may not be for everybody, but I believe in expanding, as you said, Madam Chair, the opportunity to own a home, is really what is at the heart of what kind of an America we want for this generation and the future.

One practical statement about homeownership. The Department of HUD conducted a homeownership demonstration during the 1980's known as the 5(h) program. The suggestions from that demonstration we have incorporated into our HOPE Program guidelines.

We believe that $855 million request was realistic. It is certainly negotiable, but what is not negotiable, as I said, is the idea that we need to expand empowerment and ownership of property among low-income or lower income and middle-income people.

FUNDING FOR HOPE AND HOME

In closing, Madam Chair, we were at odds over the 1991 funding for HOPE and HOME. I lost the first round. It may have been at the wrong time. I did it with sincerity. I appreciate the sincerity on the both sides of that argument. But if that was the wrong time, this is the right time.

If funds are not provided for HOPE and HOME in 1992, I think that window of opportunity that you had talked about in Baltimore and that I have been talking about all over the country—and frankly, I am going to be talking about tomorrow in Chicago at the Henry Horner Homes—is going to be closed.

I am not going to give up. I think it is going to close an opportunity to do something radically and dramatically new to begin to give people hope that their lives can be radically altered in a positive way. I thank you for your hospitality. I look forward to answering the questions of this panel.

[The statement follows:]

STATEMENT OF SECRETARY JACK KEMP

Madam Chair and members of the Subcommittee, I am pleased to appear before you to discuss President Bush's 1992 budget for the Department of Housing and Urban Development. This budget addresses the great goals of housing and homeownership that the President and I are committed to pursuing at HUD. As President Bush said just a few weeks ago when he visited the Cochran Gardens Tenant management Corporation in St. Louis against the backdrop of a children's playground that was once called Little Nam, the resident managers had created a "field of dreams." He also went on to say, "if the system's not building a better life, then we must change the system." By funding HOPE and also HOME, we can take a giant step toward fulfilling that promise of equal opportunity and access to homeownership and decent and affordable housing for thousands of Americans who need our help today.

Our budget reflects the important new directions in housing policy that the Congress approved overwhelmingly in 1990. The National Affordable Housing Act of 1990 was the first bipartisan housing bill in more than a decade. It fundamentally redirects housing policy back toward the poor and low-income families who are the intended beneficiaries of HUD programs.

When President Bush signed the National Affordable Housing Act in November 1990 and likened its passage to the Homestead Act, many of us shared a sense of optimism that at last we had found some new tools to use in our shared battle against poverty and despair; that we had forged a new consensus about the direction of housing policy for the future.

The HOPE Homeownership Grants program was proposed by the Administration and enacted with the close cooperation of Congress. It is central to the thesis that no war on poverty can be successful if it fails to give low-income families access to the assets and private property that will enable them to break the cycle of dependency in which they have been trapped.

The HOME block grant program will promote partnerships among the Federal government, states, localities, nonprofits and private industry to utilize all available resources to target housing assistance more effectively to those in need.

Congress has chosen not to provide funding for these new initiatives in 1991. The question therefore is whether these pathbreaking new approaches to homeownership and affordable housing will ever be funded; or whether the temptation to continue existing programs at the expense of the new programs will be too great. Your choice for 1992 means life or death for HOPE and HOME.

At this point, I want to thank members of this subcommittee for their efforts in the Senate to focus attention on these new programs and the need to implement them immediately. Although budget neutral amendments to the 1991 supplemental appropriations bill were not approved, good intentions were expressed about 1992 that I hope signal a genuine willingness to provide funding for these new programs in 1992. I was also encouraged that the Senate recently adopted an amendment to the 1992 Budget Resolution increasing the allocation for housing programs, in order to allow funding for these new initiatives.

Madam Chair, let me say that I take some particular encouragement from your words during the debate on the D'Amato amendment to the Supplemental. Your statements that, ". . . [W]e are absolutely committed to making sure that HOPE and HOME get off to a good start," and that HOPE and HOME would receive the "maximum priority" in the 1992 appropriations reflect your good intentions.

A number of Senators who spoke against the HOPE and HOME supplemental also expressed their support for the HOPE and HOME programs. These programs were born in a spirit of bipartisan cooperation. I hope we can, as some Senators have suggested,work in a bipartisan manner to get them funded.

Let me be candid, Madam Chair and members of the Subcommittee. As far as the Administration is concerned, failure to provide adequate HOPE homeownership funding will jeopardize prospects for Administration support for the fiscal 1992 HUD appropriation bill. Let me be more specific. The HOPE Grants program for which we have requested $855 million has three different components. Unless all three components are funded, we will not consider the appropriation to be adequate.

Madam Chair, the War on Poverty has not achieved the noble goals set forth for low-income Americans in the 1960s. Rather, it has succeeded primarily in preventing low-income residents of public and assisted housing from gaining an economic foothold for themselves, and ultimately breaking the cycle of dependence that so often entraps the poor. That is why the Administration is calling on Congress to join in launching a second front through fully funding the bipartisan HOPE programs set forth in the 1990 Housing Act.

The Homeownership and Opportunity for People Everywhere—HOPE—initiative proposed by the Administration and adopted by Congress last year, and the HOME initiative emanating from cooperation between Congress and the Administration, were designed to provide assistance directly to intended beneficiaries; to expand affordable housing opportunities for low-income families in a cost-effective and efficient manner; and to provide incentives for self-sufficiency and economic independence.

Today, about 4 million American families have "worst case" housing needs. In other words, they pay more than 50 percent of their income for rent, live in substandard housing, or are displaced. Thousands of these and other low income families are ready and able to realize the American dream of homeownership and empowerment. They deserve a national housing policy that is not "business as usual," but rather addresses their needs, their hopes, their dreams, directly. Housing can and must be made a powerful tool for combatting poverty, and that was the purpose of the new programs created by the National Affordable Housing Act.

The budget the Administration is proposing calls for spending about $25.5 billion for programs of the Department of Housing and Urban Development. When such elements as credit reform and funding for expiring contracts are factored out, this number represents a 32 percent increase from the Department's 1990 appropriation. It supports the clear and conscious decision of Congress to authorize significant levels of funding for the new programs.

That we would not be able to fund all of the programs of the National Affordable Housing Act at their authorized levels weighed heavily in the process of developing the Administration's 1992 budget, just as it will weigh in your deliberations. We were required to make choices among programs contained in the authorization, just as you will need to make choices. Ultimately, it was our desire to spend HUD's resources consistent with the new policies established in last year's authorization bill because they can empower low-income families and help them achieve economic self-sufficiency. We believe these new initiatives will also allow for the more effective and efficient use of HUD's resources.

First, we are proposing $855 million, the amount authorized by Congress, for the Administration's highest funding priority, the HOPE Grants Program.

HOPE homeownership grants will provide planning and implementation funds to enable low income families and tenants to become homeowners with a stake in their communities. Grants will be available for homeownership in public housing, multifamily rental housing and Government-owned single family properties. In 1992, HOPE grants will help as many as 32,000 families achieve the dream of homeownership, and help achieve the national goal of 1 million new homeowners by 1992. The funds will also provide approximately 800 planning grants, providing funding for technical assistance to build on the successes of numerous resident management corporations and sow the seeds for the development of new homeownership initiatives.

Some have expressed legitimate questions about the cost of these homeownership efforts. We estimate the average cost under the HOPE Grants program to be roughly $24,600 per unit. These costs vary from $20,400 under HOPE 1, to $30,600 for HOPE 2, and $28,500 under HOPE 3. While these are substantial sums, we believe it is absolutely critical to bring public housing and other housing stock up to decent, safe and sanitary conditions before it is sold to the tenants.

Unlike existing programs, HOPE funds will stretch much further because HOPE requires one dollar local match for every four dollars in Federal funds under HOPE 1, and 3 to 1 matches for HOPE 2 and 3. The match may be "hard" or "soft" and may include tax abatement, economic development activities, child care, sweat equity, locally funded mortgage buydown programs, and administrative costs. Moreover, Federal funding needed for operating assistance and further rehabilitation will end after the housing is sold to the residents. Our HOPE regulations do not permit rehab and operating costs ever to exceed those allowable under current public housing programs.

Madam Chair, I was concerned to hear the Chairman of the Senate Budget Committee, during debate on the Supplemental, question the merits of a program that transfers the ownership of public housing to tenants. The opportunity for homeownership is one of the greatest incentives that can be given to an individual or a family for becoming self-sufficient. Homeownership helps to instill self-worth, pride and stability in one's life. It upgrades the quality of life in neighborhoods and communities.

This is a stark contrast to the cynical attitude toward public housing residents that is best summed up by those who say, "You're talking about people who, for the most part, do not know how to take care of a unit on the private market."

What a tragic and hopeless view, but it is not a view that has ever been expressed to me by a public housing resident. We do not have to treat public housing residents as perpetually poor. As long as I am Secretary of HUD we will not treat them that way. We will not lock low income families in perpetual dependence when we can give them the opportunity to achieve full economic freedom.

Madam Chair, we know that low-income people can become homeowners and property managers. We know that in dozens of communities around the country—from Washington to Baltimore to Nashville to Milwaukee to Portland—empowered people have produced decent and safe housing in crime- and drug-free neighborhoods full of jobs and opportunity. People are discovering the ability, talent and potential within themselves and are taking greater responsibility for their own lives and actions.

The positive attitude that can exist in public housing communities was voiced recently by the new Mayor of the District of Columbia, when she said, "The residents of public housing do not want to live in fear. They want discipline. They want safety. They want standards and, in the end, real homeownership." This is HUD's goal for low income families, and it is being accomplished in the District and around the country.

It is ironic, Madam Chair, that the same critics who would decry the Kenilworth-Parkside homeownership program in Washington as a "costly dream" also describe Kenilworth-Parkside as "peaceful and safe." And they are also constrained to say, correctly, that Kenilworth residents must either have a job or be in job training.

Yes, the fact is that Kenilworth-Parkside residents are living in a peaceful and safe neighborhood in an atmosphere that promotes employment and empowerment. Regrettably, the same claim cannot be made about the many troubled, publicly owned housing developments nationwide, where the residents are trapped in a web of hopelessness and despair. And ultimately, Madam Chair, the cost to the taxpayer of empowering the residents of Kenilworth-Parkside will be less than half the cost of providing the operating subsidies and modernization funding that would be required to maintain the property indefinitely as public housing.

Madam Chair, I want this committee to be concerned about costs and affordability and impacts on existing housing stock. But I hope the Committee will be just as concerned about the fundamental difference HOPE can make in the lives of low-income families. Quite frankly, some who oppose HOPE funding do not believe that the accumulation of assets is a critical step in the movement to redress conditions of poverty in this country; that homeownership gives low-income families access to the basic human requirement for shelter in a form that permanently enhances their quality of life in a way that no rental program can match.

There remains the short-sighted, dreary perspective that the incomes of public housing residents will remain static, and homeownership an unaffordable dream. This perspective fails to take into account the fact that many low-income families already have sufficient income to sustain homeownership, and it can be affordable for many more if we design programs that ensure that home-buying families will have the necessary resources, such as job training, for long term stability. If we wanted to build just housing, we could do that. We could continue to warehouse poor families and continue to give awards to those who reside in public housing the longest. But we want to create incentives, and there is no greater economic disincentive I can think of than the status quo, which is the statutory requirement that public housing residents pay 30 percent of their incomes for rent. The facts are, Madam Chair, that we have created a system that houses the poor in public housing, and then works to keep them poor. This is not the fault particularly of those who administer individual PHAs, but this much needs to be understood by all: HOPE is not just a housing program; it is an empowerment program. HOPE can help incomes rise at homeownership sites to a much greater extent than incomes in conventional public housing because it provides incentives for families to lift themselves out of poverty. That is the goal of the expanded and renewed War on Poverty that we have declared and want to wage together with this Committee and the Congress.

The dramatic social benefits of homeownership alone—reduced welfare dependency, reduced crime, increased health and safety, and increased employment—deserve the modest public investment for rehabilitation. But from a practical dollars-and-cents viewpoint, homeownership makes the most sense because it gives tenants direct incentives to preserve, improve and upgrade the substantial public—taxpayer—investment that has already been made in their homes. And let me point out that the cost to the Federal government for rehabilitation and technical assistance in six of the Section 5(h) homeownership projects already in existence was $12,200 per unit; for the 30 units in the Baltimore Public Housing Homeownership Demonstration it was $4,100 per unit.

Madam Chair, we know what works. HUD conducted its 5(h) demonstration in the 1980s, and we have incorporated the good suggestions from this demonstration into its HOPE program guidelines. But I furthermore believe a priori that low-income people deserve the same opportunities to achieve the American dream of homeownership as we afford those of moderate income through such devices as the mortgage interest deduction and FHA insurance. The administration is not ready to accept another demonstration. It is time to implement what works and what Congress in its wisdom authorized in 1990 for HOPE.

There is a question whether the Department can use $855 million in fiscal year 1992 for HOPE funding. Let me lay that concern to rest: we can not only use those funds, we can use that sum and more; and our regulations are in place and ready to go. I need to clear up one common misunderstanding: HOPE is not limited simply to resident management groups. We will have in training over 250 resident management groups in public housing by the end of 1992; and we are beginning a program of resident management in assisted housing. But as important as resident groups are, they represent only a portion of the overall potential of HOPE. HOPE can also capitalize on the existing strengths and abilities of nonprofit organizations and community-based housing development organizations, PHAs and Indian Housing agencies, and other public agencies.

Moreover, while public and Indian Housing homeownership—or HOPE I—is the most publicized, and indeed a lightening rod for controversy—in actuality, the $855 million is divided into three major HOPE initiatives: public and Indian Housing would receive less than half or about $380 million; multifamily assisted housing would receive $280 million; and single family homeownership would receive $195 million.

In HOPE I, for public housing, the need and inventory is huge—over 1.3 million units that are eligible, repair needs ranging over $20 billion, and over 100,000 vacant public housing units. With HOPE funds we can address these enormous repair and backlog needs. With these funds, homeownership planning grants would be offered to over 230 projects and homeownership implementation grants would fund rehab in another 177 projects. While an ambitious first step, in total, HUD's 1992 request would begin implementing homeownership in less than 4 percent of the total eligible public housing units. In short, we are not "privatizing" the entire housing public housing stock, overbudgeting this program, or overreaching the real potential to move public housing units to homeownership. The HOPE I program is a voluntary program for resident entities, PHAs, cooperatives, nonprofits and local government bodies to choose. We envision this will be an incremental process that involves homebuyer training and economic development during the project planning phase.

In HOPE 2, for multifamily housing, the $280 million will be used in the private, assisted housing stock, which includes more than 1 million eligible units. Our 1992 budget would begin homeownership in less than 2 percent of those eligible units, representing about 200 projects. Again, we are making ambitious plans for the first year, but not overbudgeting considering the inventory of property, repair needs, and interest we received from groups and residents around the country. In HOPE 3, $195 million would be used for government-owned single family homes, and again, the inventory of FHA, RTC, VA, state and city in rem properties, properties held by state housing financing agencies, and other public agency properties is huge compared with full funding.

In short, the $855 million is a realistic request to budget a program which has such promising potential and addresses such desperate needs. I've seen the deplorable condition which so much of the HUD-assisted housing stock has fallen into, and I can attest to you that there is no higher priority than to help through HOPE the residents we are already assisting to achieve the national housing goal of decent, safe, and sanitary living conditions.

Madam Chair, the Department's request for HOPE Grants includes $10.4 million for the services component of the new HOPE for Elderly Independence demonstration, which will enable assisted elderly families to continue living independently. This demonstration will involve 1,500 vouchers using $35.8 million under the appropriation for Annual Contributions.

This program will save the government funds by helping many senior citizens from prematurely entering expensive nursing home facilities when some sort of supportive services is all that they need to stay in their own homes.

Second, the Administration is requesting $1 billion in fiscal 1992 to implement the HOME Investment partnerships provisions of the National Affordable Housing Act. This level of funding will help to ensure that participating jurisdictions have the capacity to administer the program, and it will further develop the potential of nonprofits to participate as full partners in the HOME program.

HOME can be an extremely useful tool to expand the availability of affordable housing for low-income families. The Administration worked closely with the congressional authors of HOME during the authorization process to ensure the effective targeting of the program to families with the most severe housing needs, and to ensure that funds would be available for the widest possible variety of uses, including tenant-based assistance, rehabilitation and new construction. We believe that the program is now structured in such a way as to give eligible states, localities and non-profits the maximum flexibility to meet their specific affordable housing needs.

To fail to provide funding for HOME, a program created by Congress after extensive consultation with the housing community, is to deny to states and localities the funding and the flexibility they need to implement effective and cost-efficient affordable housing programs.

It was precisely the Administration's decision to use HUD's resources as effectively and efficiently as possible, that has led to the choice not to seek Fiscal 1992 funding for public housing new construction. Funding has already been provided, between Fiscal 1990 and 1991, for the development of more than 15,000 new public housing units.

In addition to those units, there are almost 18,900 units of public housing that are reserved for which construction has not yet started, and there are an additional 8,860 units of public housing in the construction pipeline. And new construction would not take the boards off a single one of the more than 100,000 vacant public housing units that already exist in this country.

We look to alternatives to public housing new construction because the alternatives are less costly and can be implemented more quickly. The HOME program is preferable in our view, because it permits new construction in those communities with a demonstrated need; but it also allows rehabilitation and tenant-based assistance where these activities are necessary and appropriate in the local community's judgment.

I also want to remind this Committee that the HOME program would provide a predictable source of funds on a yearly basis, starting with up to 437 communities, 50 states, the District of Columbia and Puerto Rico in 1992 under our budget request. By contrast, public housing new development is funneled to a much more selective group of communities, with only 127 communities, for example, receiving new construction funds in 1989. Funding of $1 billion for HOME in 1992 would serve up to 70,000 families, and most of the assistance would be available within two years. These same funds in public housing new construction would create only about a fifth as many new units some five years after the commitment of the funds.

Madam Chair, HOME and HOPE are priorities of the Administration because they can serve more low-income people, more cost-effectively, and with more choice and direct benefits to residents. Our experience shows, for example, that in community after community there are far more families on waiting lists for Section 8 assistance, a program that is tenant based and offers greater mobility and freedom of choice, than for public housing. The consequence of failing to fund the new programs adequately is probably to deny, and certainly to defer, for thousands of low-income families the opportunity to live in decent, safe and affordable housing, and the dream of homeownership for thousands of other residents of public and assisted housing who seek nothing less than the ability to take control of their own communities and the opportunity to get access to private property.

Our choices have seldom been clearer. On the one hand, Congress can do what it has always done, namely to increase the number of families assisted by providing incremental assistance in the form of vouchers and certificates and another 6,000 or 7,000 public housing new construction units a year.

On the other hand, we can do more. We could provide housing opportunities, consistent with locally determined, not Federally determined, needs, for an additional 70,000 families over and above the important incremental assistance we propose to provide through new vouchers and certificates. At the same time we can also provide thousands of low-income families the opportunity to live for themselves by becoming homeowners.

I believe the choice is clear.

Let me move on to other elements of our budget proposal.

The Shelter Plus Care initiative requested by the Administration in HOPE and included in the National Affordable Housing Act is proposed to be funded at the authorized level of $257.7 million in 1992. Shelter Plus Care represents a holistic approach to the problems of homeless persons with disabilities that for the first time links housing assistance with supportive services such as job training, health care and drug abuse treatment.

Shelter Plus Care consists of a Homeless Rental Assistance component, as well as Section 202 rental assistance to provide leased housing for the handicapped in the form of vouchers to help them find housing that meets their special needs. The Administration is also proposing funding for the newly authorized Shelter Plus Care SRO program. The targeting and supportive services matching element of this new program differentiate it from the previous Section 8 Moderate Rehabilitation SRO program.

Madam Chair, by approving Shelter Plus Care last year, Congress recognized that we need to do a better job of matching supportive services to housing in a comprehensive and effective approach to return this needy group to independent living. The Bush Administration's request for full funding of Shelter Plus Care demonstrates that the homeless issue remains high on the national agenda. Approval of the Administration's proposed $535.7 million budget for homeless programs would represent an 89 percent increase in HUD assistance for the homeless since 1990. In total, the Administration proposes spending approximately $1 billion for homeless assistance programs.

Maintaining in decent and safe condition the existing supply of housing for low-income families is a high priority of the Administration.

The National Affordable Housing Act contained important provisions to preserve as low income housing the large number of properties that would otherwise soon be eligible for mortgage prepayment. The proposed 1992 budget provides more than $718 million to assist in the preservation of affordable housing where HUD-insured mortgages are eligible for prepayment. I am aware that the Committee will be concerned about the outyear costs of preservation. However, until the regulations governing the 1990 statute are in place in the near future and eligible owners begin to take advantage of the opportunity to file notices of intent to prepay, future needs will be difficult to determine with any precision. The Administration remains concerned that the financial incentives provided to owners under the Act are extremely generous and hence will be costly to the taxpayer. However, the preservation provisions will meet the goal of protecting housing project residents as fully as possible from the negative effects of prepayment and will allow the utilization of a range of alternative prepayment strategies, including resident management, self-sufficiency and homeownership.

We remain committed to protecting families in need who now receive assistance through the Section 8 program. We requested and received more than $7.7 billion in budget authority in 1991 to meet that significant and costly commitment, and Congress approved the Administration's request for an additional $155.8 million which we estimated would be required to fund our commitments fully. For Fiscal 1992, we propose budget authority in excess of $7 billion to ensure that no family becomes homeless because of expiring Section 8 contracts.

The Administration is also proposing $947 million to be directed at making much needed repairs in distressed, privately owned low-income housing communities as part of a strategy to improve dramatically living standards and ensure federal subsidies are reaching their intended beneficiaries. In exchange for this assistance, owners will be required to provide an equity stake to residents. The Department is requesting $290.5 million to fund needed project repairs; almost $267 million from Annual Contributions for vouchers under the Property Disposition program; $349 million of Section 8 assistance for project support; and $41 million to convert rent supplement/rental assistance projects to the project support program.

The proposed 1992 budget requests $9.1 billion under Annual Contributions for incremental assisted housing units. This amount will fund almost 84,000 incremental units, including vouchers, Section 202 elderly units, and units for the handicapped. In addition, we are proposing to provide 7,743 incremental units under the Shelter Plus Care initiative for Homeless Rental Assistance.

In keeping with its goal of empowering the low income people, the Administration again proposes that Vouchers be used as the primary means of providing assistance to very low-income families. Both Vouchers and Certificates provide financial assistance to eligible households to enable them to afford private market rental housing. However, Vouchers allow recipient families more freedom of choice in selecting suitable housing by removing the cap on the amount of rent a family can pay. Unlike the Certificate program, if a Voucher family finds a unit it wants, or wants to stay in its existing unit, it may choose to do so and pay an additional rental amount. Conversely, if the family finds a unit that rents for less than the Fair Market Rent, the family keeps the savings. This shopping incentive is a good example of empowerment. While we recognize that families in the voucher program are paying on average slightly more of their income for rent than those in the Certificate program, they have much more choice in where to live, and greater opportunity to select the kinds of neighborhoods and kinds of housing they believe best suits their needs.

Madam Chair, the Department is proposing that authority for administering several assisted housing programs—vouchers, certificates and Moderate Rehabilitation—be transferred from the Office of Housing to the Office of Public and Indian Housing. As the Committee knows, the Office of Public Housing already deals with PHAs on matters related to management and public housing. Transfer of assisted housing programs to PIH would centralize and facilitate the Department's contact with those local agencies that deal with both public and assisted housing.

The National Affordable Housing Act authorized a new capital grants program in lieu of the previous Section 202 loan program for the elderly and handicapped. For 1992 we are requesting funding for 2,000 new construction units—half for the elderly and half for the handicapped. In addition, the Department proposes to fund another 3,000 units of leased housing, 2,000 for the elderly and 1,000 for the handicapped.

I recognize the strong support that exists in Congress for the Section 202 program, and I share your commitment to housing for the elderly and handicapped. I think it is important to mention, however, that in addition to the 202 program opportunities for elderly housing exist in the HOPE for Elderly Independence program, the Housing voucher program and the new HOME program. HOME, in particular, provides the mechanisms for local communities to meet the housing needs of their elderly populations through a variety of means ranging from new construction to leased housing, and through non-profit organizations that already participate in the 202 program.

Madam Chair, when we came to HUD, there was an enormous backlog of Section 202 projects that had been awarded funding but which had not gone to construction. When the Bush Administration took office in January 1989, there were more than 46,000 units backlogged in the 202 pipeline. By the end of this fiscal year, that number will be down to 18,000 units, with 16,000 more units scheduled to come out of the pipeline in 1992. Using a combination of leased housing and new construction will enable the Department to avoid the delays inherent in new construction contracts that led to the creation of the backlog.

The Department remains committed to the modernization and effective operation of the nation's public housing stock. Our proposals for modernization and operating subsidies represent a continuing commitment to "take off the boards" from the more than 100,000 vacant public housing units.

For modernization of public housing, we are proposing $2.3 billion, which exceeds last year's request by $500 million. This year for the first time, modernization funds will be allocated to medium and large PHAs and Indian Housing Authorities on a formula basis and to small PHAs on the basis of a revised CIAP program. Lead-based paint testing and abatement will remain a high priority of the modernization program.

Additional funds are also requested to provide resident management technical assistance and training to resident management corporations and councils to help develop resident management capability. Madam Chair, the requests from tenant groups for resident management training and technical assistance have more than tripled over the past two years. For the Fiscal 1991 grant round of $5 million we received 340 requests for funding from public housing resident management groups or tenant councils seeking to start up new programs. We clearly are well on the way to achieving our goal of 250 RMCs in training by 1992.

Our request for $2.2 billion for operating subsidies represents an increase from the 1991 appropriated level. The Department also intends to continue its efforts to offer incentives for PHAs that reduce the number of vacant units.

Because eliminating the scourge of drugs from public housing remains a high priority, we are proposing to increase funding for public housing drug elimination grants by 10 percent, to $165 million, in 1991. This funding will support security personnel, physical improvements, tenant patrols, and the development of innovative programs to reduce drug use.

Madam Chair, I would like to turn briefly to the subject of lead-based paint—a topic of continuing interest to the Committee and to me personally as well. The HUD budget requests $25 million as a set-aside under the HOME program to assist lead paint abatement efforts by state and local governments. This Administration initiative would for the first time make specific Federal resources available to attack this serious public health threat in privately owned housing. I regret that the Appropriations Committee in the other body did not fund this item, which is one important part of a stepped-up effort under this Administration to deal with lead paint hazards. It is needed to extend and expand our efforts to address lead-based paint.

I believe that HUD and the Administration have given greater attention to the problems of lead-based paint over the past two years than during any comparable period in the 20-year history of the Lead Based Paint Poisoning and Prevention Act. In the last year the Department has completed a demonstration of abatement techniques in 173 FHA-owned houses and provided Congress with three reports on lead-based paint, including the Comprehensive and Workable Plan submitted last December. We have also issued Interim Guidelines to serve as a technical handbook for PHAs to use in removing lead-based paint; and we have initiated, in cooperation with the EPA, training of HUD and PHA staff using the Interim Guidelines. We intend to keep Congress fully informed of our ongoing efforts.

The Department has a clear focus and full agenda for lead paint abatement, including: continued research on improved and less costly testing and abatement methods; development of an "interim containment" plan for public housing to reduce hazards in units not scheduled for abatement in the near future; and completion of the public housing demonstration and submission of the related report to Congress.

With heightened public awareness of lead-based paint hazards, I expect that the demand for abatement activities and resources will mount in the coming years. We believe that the $25 million program under HOME is an important step forward. The Federal Government can and will assist with research, testing and education, and with Congress's support, additional financial assistance. Let me make it clear, however, that the Federal Government alone is not responsible for eliminating lead-based paint in the entire housing stock of the nation. It will take action at all levels of government and the commitment of individuals and the private sector over a long period of time to combat the lead-based paint problem.

The Department's community development programs are designed to address local priorities and to assist a broad range of activities ranging from housing to economic development. We are proposing funding of $2.9 billion for community development activities, which is consistent with appropriations for the program in previous years. The 1991 appropriation of $3.2 billion was an exception to the general rule, and reflects the decision made last year to add money to existing programs rather than to fund new and innovative programs. I would add, Madam Chair, that the decision of the Congress last year to accept the Administration's proposal to increase the low/mod benefit requirement under the Community Development Block Grant (CDBG) program will help to ensure that the requested funds are better targeted to those in need, consistent with the national priorities of the program.

Madam Chair, last year I gave my commitment to endorse programs for new Indian housing construction, because I recognized that other forms of housing assistance have limited usefulness when the fundamental problem is the availability of decent, safe and affordable housing. The Administration proposes to use the HOME program to improve the delivery of housing resources to the Native American community. HOME sets aside a minimum of one percent of funds to be used by Indian tribes. We will request that the reservation of funds be raised by $115 million, resulting in a funding level of $125 million. We believe that HOME will provide the flexibility that Indian housing leaders say has been missing from their housing programs. We are also requesting $29.15 million for Indian tribes under the CDBG program.

We estimate that we will have about 1 million applications for FHA single family insurance in 1992, which will require more than $53 billion in commitment authority. We also intend to continue the work we began in cooperation with Congress last year to reform the FHA program and restore it to actuarial soundness. Regulations implementing the revised mortgage insurance premium and equity requirements imposed in the National Affordable Housing Act have been published as Interim Rules in the Federal Register. Implementation of these regulations is essential if we are to achieve the statutory requirement of a 1.25 percent capital ratio in the FHA Mutual Mortgage Insurance (MMI) Fund by the end of 1992.

The equity rule would limit the amount of closing costs that could be financed to 57 percent, in order to protect the financial integrity of the fund. There are those who are urging Congress to eliminate the statutory authority of the HUD Secretary to require the payment of a portion of closing costs in cash—authority the HUD Secretary has had for years. We believe that such a step would be dangerous and damage our effort to restore the MMI fund to actuarial soundness.

While the 57 percent maximum for closing costs is not explicitly contained in the National Affordable Housing Act, the provision of NAHA was clearly designed to be consistent with the 57 percent maximum. The 57 percent maximum is consistent with the Price Waterhouse analysis on which last year's FHA reforms were based and was the Administration's understanding of the intent of the conferees. This is clear from the transcript of the conference committee. The Administration supported the FHA reform package on the basis of that understanding. Indeed, all the policy options considered by the conference committee considered a limit on the share of closing costs that could be financed. The 57 percent cap is the amount Price Waterhouse determined is required to meet the mandated capital ratios and to reduce FHA's default rate to a level that both Congress and the Administration agreed was acceptable.

The sobering results of the 1989 audit of the MMI Fund remind us that this is not the time to backtrack on the letter or the spirit of the 1990 FHA reforms. I urge in the strongest possible terms that Congress not weaken the current authority of the Secretary to take steps necessary and appropriate to ensure that the FHA fund achieves capital levels sufficient to meet unforeseen, adverse economic conditions.

The proposed budget proposes $924 million for the administrative expenses of the Department, including $45 million for the Office of Inspector General. The total consists of $479 million in appropriations and $445 million in transfers from FHA. The staffing request is for 14,281 staff years, including 592 for the Office of Inspector General. This request represents an increase of 202 staff years for the Department.

I am aware of the Committee's concern that in both 1990 and 1991, the Department reduced the staffing levels indicated in the appropriation because the funding available would not cover personal services for that number of people. These problems resulted from a number of factors that included, in part, the need to increase competency by hiring skilled employees who could make immediate contributions to HUD programs, thus increasing the average pay grade. The resulting higher average cost per staff year and the absorption of pay increases and higher than budgeted cost caused the funding shortfall.

We intend to eliminate this problem in 1992. We believe our budget is based on a realistic forecast of average personal services costs, and we anticipate that the personal services funding request will fully support the staff years requested for Salaries and Expenses.

Madam Chair, before concluding, I want to address one final issue that you raised during the debate on the supplemental appropriation. Specifically, you called into question the ability of the Department to forecast with accuracy its funding needs. This is an issue we have discussed before, and I consider it as important as you do, because it goes to the heart of our ability to manage the Department's resources effectively and to the fullest benefit of those our programs are intended to serve.

In particular, you raised a concern over the accuracy of budget requests for Section 8 rental assistance funding. HUD currently provides billions of dollars annually in Section 8 subsidies to help reduce the rent burden of over 2.5 million families and individuals. To process accurately the payments for this enormous number of households requires an automated computer system. There is no such system at HUD, and we are making a good faith effort to correct this problem.

It is important to ensure the accuracy of budget requests. However, the legal requirements of the Section 8 program demand complicated budgeting and contract management, and thus make it expensive to administer and prone to fraud and abuse. It is the effective administration of the Section 8 program that must be our highest priority.

Due to the complexity and size of the Section 8 program HUD in 1990 hired Arthur Andersen to identify existing program problems and develop clear, workable solutions. A quick fix was not acceptable. Rather, a well-researched analysis of the problems was necessary to ensure a long-term solution.

Recently, Arthur Andersen made a number of recommendations that are projected to save the Department millions of dollars annually. HUD plans to implement the recommendations over the next several years, at a total cost of approximately $70 million.

In closing, Madam Chair, when you opposed the effort to provide supplemental funding for HOPE and HOME, you called the amendment to provide that funding "a good idea at the wrong time." Let me suggest to the Committee that if the supplemental was the wrong time, then the right time is now. The only requirement to ensure adequate funding for HOPE and HOME in 1992 is the commitment to help thousands of low-income families—those who would not otherwise have the opportunity—achieve affordable housing and homeownership. If in Fiscal 1992 further excuses are found not to fund HOPE and HOME, then the window of opportunity to realize the vast potential benefits of those programs will be closed and probably locked. And it will probably be locked on the spirit of cooperation that produced those programs.

Senator MIKULSKI. Thank you, Mr. Secretary.

As I said, at 4 o'clock we will be getting our 602(b) allocation. Also, I have received a note that they are anticipating a vote sometime within the next half hour. But you know how—it might or might not happen.

Secretary KEMP. Did I ask for a unanimous—did I ask for your permission to submit my statement in its entirety?

Senator MIKULSKI. Without objection, the entire statement will be submitted for the record, as will be all of the Senators who wish to enter them.

Secretary Kemp, the authorizing committee gave this subcommittee 4 billion dollars' worth of new obligations: HOME, HOPE, and others. It cut out $800 million in programs it wishes to terminate, Nehemiah, section 312, et cetera. That is one set of concerns we have.

The second set of concerns we have is the allocation we received will probably not be much greater than what the House got. Of course, we have HOME and HOPE. We have VA medical care and we have the space station.

Under the House thing—because I am going to get you what you think are acceptable levels—the House handled their allocation by providing only $500 million to HOME and only $200 million to

HOPE. You had asked for $855 million. The President asked for $1 billion.

LEVELS FOR HOPE AND HOME

We have been instructed by the authorizing committee even in HOME to do more. As you have now prepared to do those programs, and you were prepared to do them in March, what do you feel is the bottom line minimal, acceptable level is for both programs in 1992; knowing that when we started, we do not want to be whimpy about it?

In other words, we do not want to have a paper start. We want a real start in both of those. Could you share with us then what your recommendations would be?

Secretary KEMP. That is a tremendously profound question given the restraints under which you operate and given the challenge that we have at HUD. I would say that, obviously, my opening would be the authorized level of $1 billion for HOME and $855 million for HOPE.

The President's request was, we thought, within the confines of acceptable priorities. Many of the things that you mentioned—and you and I have talked about over the years, Madam Chair—from Nehemiah to other programs, could be accomplished under HOME and would be more applicable on a broader scale.

I am a strong supporter of the way HOME came out in the National Affordable Housing Act because it was, in my view, a way of doing what you wanted to do, which is to get decisionmaking closer to the people, to the States, and to the localities that know their own priorities better than we do in Washington.

So, having said all of the things that I have said in my testimony, it would be repetitive for me to go back into what we want for HOPE, but we would like at least $380 million for HOPE I, the program for public housing homeownership. We could use all of the $855 million requested for the HOPE Program.

I understand the House went $500 million for HOME. The minimal level, you know, is our request for $1 billion, but I have to say $500 million is acceptable. I hope that becomes, though, a floor and not a ceiling.

I think it would be a mistake to go below $500 million for HOME and frankly, Madam Chair, I would be radically disappointed if the Congress in its wisdom could not come up with around $380 or so million for HOPE I in 1992.

Senator MIKULSKI. Secretary Kemp, $380 million would be for HOPE I and that would be a very good launch.

Secretary KEMP. Hope II and Hope III could get along with $100 million each. That is what the House allocated to it. They are going to debate an amendment in the House tomorrow that is today before the Rules Committee to add a couple hundred million, I think, or $150 million, into HOPE I.

My feeling is that if we come out of the House with some money for HOPE I, HOPE II, and HOPE III, that maybe by the time we get through the whole conference and we have looked at the 602(b) and given the negotiations between you and the House, we could end up closer to my request or our request then.

HOME—NUMBER OF COMMUNITIES PARTICIPATING

Senator MIKULSKI. Let us go to the HOME Program which is a formula-based program. If there was no change in the HOME formula; how many communities do you think could participate at a $500 million level? How many could at a $1 billion level? And $1.5 billion?

Secretary KEMP. Let me handle $1 billion because we have done some work on it to try to quantify how many units we could support under a $1 billion HOME appropriation. Obviously, the question's answer depends upon how the local governments and State governments handle their own priorities.

We estimate—now, these are estimates—in new construction about 15 percent of those HUD funds would support around 2,300 to 2,400 units with an average cost of $79,000 to $80,000 per unit.

Substantial rehab or gut rehab, 10 percent of the HUD funds, $82 million, would support another 2,200 or 2,300. Mod rehab, 50 percent of the HUD funds, $412 million would support around 35,000 units.

Tenant-based assistance; that is, vouchers and/or certificates, 25 percent of the HUD funds, $200 million would support close to 27,000 units at a cost of about $4,900 per unit.

It is interesting though, as you look at construction versus substantial rehab versus moderate and light rehab, coupled with support through vouchers and certificates, not only is the cost of tenant-based assistance demonstrably lower, the assistance also goes to the individual family almost immediately.

Senator MIKULSKI. Mr. Secretary, those are the estimated units if they use them along traditional lines.

Secretary KEMP. Yes.

Senator MIKULSKI. My question was, How many communities would be able to participate? I mean, $500 million for the United States of America, with money going out on a formula basis, would it go——

Secretary KEMP. The estimate is around 281 entitlement communities throughout the 50 States, the $500 million.

Senator MIKULSKI. 281 for $500 million?

ELIGIBILITY THRESHOLDS AND HOME PROGRAM

Secretary KEMP. The threshold would have to be lowered, I am told.

Al, do you want to take——

Senator MIKULSKI. Yes.

Mr. DELLIBOVI. The numbers that we have would be, assuming $500 million, we would have to adjust the threshold in the authorization bill because the threshold would only work with a minimum of $1 billion.

So, you would have to change the authorization. If you did that, we could serve 50 States, 281 communities in those 50 States.

Senator MIKULSKI. If you did not change the thresholds and you had $1 billion, the way the authorization was structured, what would you estimate that to be?

Mr. DelliBovi. We will have to answer that later for the record. About one-half the number you would get without changing the threshold.

Secretary Kemp. About one-half of that number, we are told by our budget experts.

Senator Mikulski. If you double the money, you get one-half the number of communities? Does that make sense?

Secretary Kemp. If you did not change the threshold.

Mr. DelliBovi. Madam Chair, if you did not change the threshold, you cannot split it up in as many pieces.

Senator Mikulski. How would you change the threshold then? Would it be then so skimpy as to be meaningless?

Secretary Kemp. Let me answer that for the record.

Senator Mikulski. This is why we are talking about a real start.

Mr. DelliBovi. It would not be meaningless in the 295 communities. Obviously, the more money you have the larger the pieces can be when you split it. But we believe that you could serve 281 communities by changing the thresholds. As the Secretary testified, $1 billion, which was the request, would serve more.

Senator Mikulski. What would you change the threshold to?

Mr. DelliBovi. We will have to answer that for the record, Madam Chair.

Senator Mikulski. OK. Well, this is crucial as we try to then formulate our——

Secretary Kemp. You will have an answer within 24 hours.

Senator Mikulski. Thank you.

[The information follows:]

Number of Communities Funded Under the HOME Program

The Department's 1992 Budget request for the HOME program of $1 billion estimated that 437 localities would qualify for direct entitlement funding. This projection assumed enactment of a legislative proposal to reduce the authorized threshold for local jurisdictions participating in the program from $750 thousand to $375 thousand. The purpose of this proposed change to the threshold amount is to enable roughly the same number of localities to qualify for direct entitlement funding in the HOME program as would be the case if the program were funded at the authorized level of $2 billion. By comparison, if the proposed threshold reduction is not enacted, the estimated number of local jurisdictions eligible for entitlement funding at the $1 billion level would be 255.

Similarly, a funding level of $500 million would result in an estimated 150 localities qualifying for entitlement funding based on the existing threshold. However, this estimate would nearly double to 281 localities if the proposed threshold reduction is enacted.

The 1992 Budget also included proposed legislation to change certain thresholds affecting State participation in the HOME program. However, these changes do not affect the total number of States eligible to participate in the program, since all States will be funded at both the $1 billion and $500 million funding levels.

A major effect of lowering State threshold amounts is to ensure that the HOME formula for States varies according to need and is not fixed at a constant amount. Thus, reducing the minimum funding allocation to States from $3 million to a minimum of $1.5 million (as proposed in the Budget at the $1 billion funding level), would mean that only five States would receive a fixed allocation amount of $1.5 million. By comparison, without enactment of the reduced threshold, the number of States receiving the $3 million minimum allocation would increase to 19 (38 percent of the total).

At the $500 million level, unless the threshold is lowered, 40 States (80 percent) would receive an allocation of a fixed amount of $3 million rather than an amount which varies according to need. The House Bill contains language changing the minimum State allocation from $3 million to $750 thousand. This change would mean that only six States would receive the $750 thousand minimum, as compared to the 40 States under the existing threshold.

The Budget estimates of the numbers of affected States and local entitlement jurisdictions, at the $1 billion funding level, assume set-asides of $25 million each for both technical assistance and the lead-based paint initiative—the same amounts included in the House Bill. The Budget request of $1 billion also assumes a $125 million set-aside for Indian tribes whereas the $500 million level assumes a 1 percent ($5 million) Indian set-aside.

PRESERVATION OF EXISTING HOUSING STOCK

Senator MIKULSKI. I would like to go on to another issue before we turn to other questioners. This goes to the preservation of existing housing stock. What, would you say, are HUD's top three priorities for the preservation of existing housing in the 1992 budget?

Secretary KEMP. Let me turn this over to Housing Assistant Secretary Art Hill, our FHA Commissioner.

Senator MIKULSKI. Mr. Hill.

Mr. HILL. Thank you Madam Chairman. As you know, while our preference is to preserve the existing stock and through title 2 of the 1987 act and title 6 of the National Affordable Housing Act, we tried to lift the moratorium on those units that were available for the prepayment aspect of the preservation title.

As it relates to the incentives that will be provided to those owners, we are trying to induce them to stay within the housing stock by providing the owners equity takeouts and also longer terms under section 241 of our program.

Meaning, giving them an opportunity to pull additional equity out of their units so that they would be able to maintain their product in the form that is amenable to our tenants.

Obviously, we would prefer to see the funding available for the preservation aspect for those that will be able to stay when choosing not to prepay. So, from the standpoint of looking at those units that are available to prepay, our priority and our desire is to maintain incentives for those eligible units coming up in this fiscal term.

Senator MIKULSKI. Mr. Hill, preservation has traditionally referred to the 221's and the 236's.

Mr. HILL. That is correct.

Senator MIKULSKI. Of course, we are concerned about prepayment, section 8 renewals, and, of course, I happen to believe public housing modernization is one of the parts of preserving our housing stock.

What would you say, within that framework, are absolutely the top three that need to be sustained, maintained, or even amplified?

Mr. HILL. Preserving the stock through modernization is one. Obviously, maintaining the 236's, 221, and 221(d)(3) below-market properties is another priority. So, I would consider those and the 236's as well. The 236's, the modernization, and also the 221(d)(3)'s are considered priorities.

Secretary KEMP. Can I add a postscript to Art Hill's answer and just give the highlights of our request that might establish the priority even further. We have asked for $9.1 billion under annual contributions. That would include 91,000 incremental units and 78,000 or so vouchers.

A total of $718 million for preservation of low-income housing. $7 billion to renew the section 8 rent subsidy contracts which you and

I have discussed many times. As vexing as that issue is, this administration is absolutely committed to renewing these contracts, as I told you last year and the year before. A total of $2.3 billion for modernizing public housing is requested, including $25 million for the lead-based paint removal.

Senator **MIKULSKI**. We have time to do a second round, Mr. Secretary. I am going to come back and pursue those in more detail. We have been allocating somewhere between 10 and 12 minutes.

Mr. Bond and then Senator Lautenberg.

Senator **BOND**. Thank you very much, Madam Chair.

CIAP FUNDS AND ST. LOUIS, MO

Mr. Secretary, As you probably well know by now, the city of St. Louis, in an unbelievable gaff, sent one piece of the required application for CIAP funds in 5 days late. I do not make any excuses for the housing authority, because, in fact, the mistake was inexcusable.

But my question is, Why the tenants in the city of St. Louis should be punished because the housing authority made a mistake? You and I and the President visited Cochran Gardens this spring. We saw the great things that Bertha Gilkey and the residents are doing, yet the bulk of the CIAP money that was applied for was intended for Cochran Gardens.

As a result of this situation, Bertha Gilkey and the Cochran RMC may not get any money this year. What can be done about this? Can you find a remedy to this situation?

Secretary **KEMP**. Before I turn it to Al DelliBovi, Senator Bond, let me say that in answer to your question—and this is something that I just began to get into as I was driving up here—you said in the predicate of the question that it was something you cannot explain yourself.

So, without casting about for blame, let me just tell you that I, personally, will dive into this problem upon my return to my office subsequent to the hearing. We will have for you the outline of the problem, how it happened, what alternatives we have, and will take a personal interest in this because of the importance to you, the city of St. Louis and the people who are represented by the problem.

But I would like for Al to at least shed his perspective on this, given the fact that he was the first to hear about it.

Mr. **DELLIBOVI**. Let me say, Senator, first, it is a frustrating experience. We published the notice of funds availability. We placed in that notice a checklist in bold print the things that absolutely had to be submitted with the application.

It was then repeated again in the checklist. After the NOFA was published in the Federal Register, our regional office sent out a CIAP notice explaining this. Training sessions were held. Meetings were held with all of the housing authorities in the St. Louis area. This housing authority was represented there.

They had 60 days to submit the application. They got it in on the last day without this critical document that was required in bold print. It was a drop-dead requirement. Either you had this or you did not have it. Now, we have several thousand authorities that have applied for these funds. Some have missed out because they did not provide critical information.

We are running these programs on a fair basis, under fair competitions—that is one of the lessons we learned. That is a part of our reform. We have requirements. We lay them out for the localities and they are supposed to meet them. Now, having said all of that, the regional administrator, who I spoke to earlier today, and the Housing Director, Steve Israelite, who I believe you know, and our Deputy Regional Administrator, Elmer Binford, are trying every way possible to figure their way out of this quandary to keep that project alive.

But I, frankly, do not see a way that we can cancel the entire national competition even though this housing authority that has now fired its housing director, or he resigned in the last 24 hours, we cannot rerun it for the whole country because one authority did not do it.

Secretary KEMP. He does not ask that. That is not what the Senator asked. Let me just say to you, I personally will dive into this problem upon my return to my office.

Senator BOND. That is what I ask, Jack.

Secretary KEMP. I think it would be better than to do it in a way in which we react subjectively. I want to react to you objectively and dispassionately. I will pledge to do everything we can to make sure that I give you an adequate answer and we do not leave people hurting who need help.

Senator BOND. That is the key thing. All that Al said is correct. I can cite you even more; but the date was blown and the people who live in public housing in St. Louis are going to be the big losers unless you can get in and do something.

Quite frankly, it is snafus like this that led us to reform the whole system and not make it an application-driven system in the bill last year. We hope this is the last time we see it, but your personal attention is very important and all of the residents of St. Louis, and I, personally, appreciate it very much.

PUBLIC HOUSING MANAGEMENT REFORMS

Second, another area I am very much concerned about are the proposed regulations that you have set out on implementing section 502 of the National Affordable Housing Act. When we set up the public housing management reforms, the idea was to set up a very simple, objective system that HUD could use to identify the most severely troubled housing authorities and then move in to remedy the situation.

We did not expect to set out a test that could be run, would have to be run on a computer to come up with all kinds of points and scores to rank them numerically, but rather to have—we suggested seven indicators which would ring a bell that there is something wrong.

Frankly, as I look at the 39 indicators that are proposed in the regs and the 455-point system, I see us getting back into the same level of complexity that we used to have where we have tried to spell out too many things in reports. We are going to be putting an impossible burden on the smallest housing authorities which, even though they may be small in size, still need to be held accountable.

Secretary KEMP. I agree.

Senator BOND. I would hope that my comment would be considered during your public comment period that there are about 30 indicators too many and that the system could be simplified.

Secretary KEMP. My Assistant Secretary for Public and Indian Housing, Joe Schiff, is not here, but his General Deputy, Mike Janis, a very able career public servant, is here. I am going to ask him to give you a perspective on this.

I must say, though, that in the little more than 2 years that I have been in HUD, the question of what to do about the troubled PHA's is among the most vexing and complex issues I have ever dealt with in either Congress or in the President's Cabinet.

There are many troubled public housing authorities. The largest ones are often times the most at risk. I will consider very, very seriously any ideas that you and the Committee have for reform.

But Mike, would you give Senator Bond our perspective on this vexing issue?

DEVELOPMENT AND SCOPE OF PROPOSED RULE

Mr. JANIS. Senator, I appreciate your concern. We, quite frankly, have heard the same concern from a number of agencies. As you mentioned, this is a proposed rule. We are getting comments in right now. We are really very interested in what the public thinks.

In fact, we are holding a working group meeting on the 13th of this month to get additional public comments in, along with the industry groups and individual PHA representatives.

Let me give a couple of features of the program: it will not require a public housing agency to do a lot of additional work for the program. We envisioned, even under the current proposal, a three- or four-page certification by the public housing agency.

Virtually, all of the requirements under the proposed program are requirements that currently exist somewhere in a statute, in a regulation, or a handbook. We went beyond the section 502 seven required indicators to look at the areas of management operations that we felt reflected the full breath of performance of public housing agencies.

There are a number of indicators that we have included that we think go beyond the quality of the facility itself, but go toward the quality of life for the resident, for example.

We are very amenable through the public comment period in dealing with those issues and those suggestions for modifying the indicators. We look at this system, however, as being the way for the first time, really, to capture for the public housing industry what the performance indicators should be in public housing.

I would suggest that we have suffered for years by not having a common understanding of what the quality of public housing is in the country. Our attempt is to design a system to do this.

Senator BOND. I do not know whether that was a gentle hint. I appreciate it. I would just say that a lot of these things look like internal controls, procurement controls. I think we would be far better off to take a look at some of the big factors and frankly require somebody from HUD to visit the developments and talk with the residents.

Secretary KEMP. May I interrupt long enough to say that not only Jack Kemp, but every one on my team up to and including Mike Janis and Joe Schiff, have not spent our time in the Department here in Washington. We have been in the field; visited troubled and not so troubled public housing communities.

We will be sensitive and responsive to the comment period that Mr. Janis alluded to. So, you have that pledge, but we consider this to be one of our great challenges in working with the public housing authorities. I have talked to them. They have talked to me. There is an ongoing dialog. We appreciate your comments. We will be very sensitive to the comments that we get during this period.

Senator BOND. We appreciate being able to work with you on these. We will have some additional questions that I will submit for the record. There is one outside this general area, though, that I would just appreciate a quick comment on why there is no funding for family——

Senator LAUTENBERG [presiding]. If I might, in the absence of the chairman, I am next in line. So, I am taking over the chair. Are you finished?

Senator BOND. I would ask that you pay particular attention and respond to a question that I will submit on why there is no funding for the family unification program. I apologize.

Secretary KEMP. Not at all.

DRUG ELIMINATION PROGRAM

Senator LAUTENBERG. Mr. Secretary, I know that you share my concern about the problems of drugs and violence in so many of our public and assisted housing projects. While I appreciate the administration's support for virtually full funding of the drug elimination program, it still is a new program.

I realize that some of the initiatives that we funded last year are just getting off the ground. I would like to ask you if you have any evaluation of the program? I can tell you that I visited with people in some of the housing units, particularly in Jersey City, where the tenants and the housing authority have worked together and really made a difference.

They were very positive about the fact that they were able to employ their own people. They were able to have a voice in the management of the security as a result of that. Do you have any evaluation of your own, thus far, of the program? We do have an endorsement by the administration because they are requesting the funding that we have looked for.

Secretary KEMP. As you suggested, Senator Lautenberg, the request of $165 million is up over not only 1991, but dramatically up over 1990. We have learned as we have moved forward in this area. We appreciate your leadership on this issue.

You are absolutely right that there is a perfect correlation between the presence of authority, security efforts, lighting, tenant involvement, and, if not the total elimination of drugs, at least the marked diminution of drug activity.

So, physical improvement of the premises, lighting, antidrug patrols all help. I was at Cabrini Green and one-third of the Cabrini

Green community is managed by the tenants themselves. It was working. The other parts of Cabrini were not as well managed. So, you have put your finger on the eventual solution.

It is going to cost money. It is going to take the active involvement of the tenants, the public housing authority, the U.S. Congress. It is going to take money. It is going to take our continued vigilance.

Ultimately however, I want to say, I do not think you can ever truly eliminate it without the residents themselves, empowering themselves to take back their own neighborhoods. They need help. We plan to give it to them. We thank you for your leadership.

Senator LAUTENBERG. We think this is a good start. I am glad to get your support and, of course, appreciate the fact that the administration has said, "Listen, we want to fund this at this level."

HOME PROGRAM

On the question of HOME, a program that provides funding for the development of affordable housing. I strongly support the program. I am very interested in the 15-percent set-aside for community-based, nonprofit groups. You know how the program works. I have been down to visit some of the people in my hometown of Paterson, NJ, now a poverty stricken community with many social problems.

But when the people who are able to participate are invited to, it makes an enormous difference. They contribute hours of work. They contribute their time. It is a terrific program. Therefore, in order to get the community nonprofit housing groups involved, we obviously have to have some of the funding and 15 percent.

So, let me extrapolate just a little bit and say that if you agree and the President agrees that HOME is a good program, it is authorized $2 billion, why was there only $1 billion included for this program, Jack?

LEVEL OF HOME AND HOPE FUNDING

Secretary KEMP. Senator Lautenberg, I would say as far as Kemp is concerned and as far as my advice to OMB and to the White House would be concerned, I would prefer to go to the full funding of both HOPE and HOME. We are dealing in an environment where we know, in the administration and you certainly know in the Congress, that it is not in the cards.

The House gave us $500 million for HOME. My hope is that it would be closer to the $1 billion we requested. But we are dealing with the reality of having lost all funding for HOPE and HOME in the 1991 supplemental and it makes it a little bit inappropriate to ask for the fully authorized level for HOME in 1992. But anything you want to give us will be acceptable.

Senator LAUTENBERG. Had you your druthers, you would have been at the fully authorized level?

Secretary KEMP. Both HOPE and HOME could have been fully funded in the budget, but HOME is not fully funded up to the authorized level. I accept that, because to fully fund HOME at $2 billion would have required some extreme, some very dramatic changes in budget priorities, both for the Congress as well as the administration.

We fought a battle to fund HOME and HOPE in 1991. We thought we fought a good fight in the 1991 supplemental appropriation. We lost. It was pretty clear that the Congress did not want to move money out of new construction of public housing to HOPE and HOME in 1991. So, our budget request is what we think is realistic given the constraints of the budget.

COMMUNITY DEVELOPMENT BLOCK GRANTS

Senator LAUTENBERG. I want to discuss CDBG for a moment. The President's budget calls for a 9-percent cut. CDBG is the only significant HUD program that can be used for economic development. It has already been reduced, substantially cut by 53 percent real term since 1981.

Mr. Secretary, you are a guy who stays in touch and knows what is going on in your own home State and across the country in terms of the capacity of cities, States, local government to be able to come up with any additional funds beyond those needed to just keep those communities alive.

Here we are with this one opportunity that remains able to provide some hope and some incentive for some economic development. I would have to come up and say to you that I think it is a terrible time to look for further cuts in CDBG. I would like to get your view on that.

Secretary KEMP. Well, Senator, I appreciate your comments because I was not a wild-eyed enthusiast before I got into my later years in the Congress and began working a little bit more closely with the mayor of Buffalo and with people in other parts of my district.

So, from that standpoint, I became more enthusiastic as I got into a more senior position as a Member of the House from the Buffalo area. At HUD, I am impressed that the mayors of big cities, medium-sized cities, as well as the smaller ones are doing some innovative things. I have become even more impressed as I have stayed into the second year of my term at HUD.

The $2.9 billion is, as you say, a small cut from the $3.2 billion of 1991. But the request is in the $3 billion range. I know this is not fair to a mayor who looks upon inflation and other problems that he or she might have. But if it has to be put it into perspective. CDBG went up rather dramatically from 1989 to 1991.

I think the $2.9 billion is adequate if you consider it along with HOME.

Senator LAUTENBERG. How about revenue sharing?

Secretary KEMP. Wait a minute. Let me just finish the point. I did not mean to try to belabor the point except to put into perspective that many cities who were doing both economic development and housing under the old CDBG can now devote CDBG more to economic development if we can get them $1 billion in HOME.

That means there is almost $4 billion in block grant type programs for housing and economic development to help low- and moderate-income people. So, I think that, viewed against the backdrop of our request for HOME, it gives a little better perspective.

Senator **LAUTENBERG**. I guess, Mr. Secretary, what happens is we look at a total pie and it shrinks. We, therefore, say OK, but we are taking care of some important programs. Maybe that puts a different spin on it.

The fact is that from where we were at a high point making less funding available than we used to eliminating again revenue sharing. You had a recent CDBG report that suggested that the demand is increasing and that the number of entitlement communities for CDBG increased 30 percent. The level of funding continued to decline.

This relatively small cut, as you describe it, comes after lots of wear and tear on this program. It is the only one of its kind left. That is why it is a little disappointing.

I would, Madam Chair, with your indulgence, just ask a couple of short questions. Hopefully, short answers as well about New Jersey.

RESULT OF TASK FORCE ON NEW JERSEY PHA'S

I want to commend HUD for having the task force get out there in October, produced several reports telling of problems that arose in the management of several New Jersey public housing authorities. One of those involved was just sentenced to a long term in prison, as it should be.

I want to commend you and the Department for identifying these abuses which hurt both residents and taxpayers. The report included several recommendations to prevent similar abuses in the future, established guidelines to help housing authority commissioners exercise better oversight on the operation.

Are these recommendations at a point now, where they are being implemented?

Secretary **KEMP**. Senator Lautenberg, because you are asking about a specific housing authority in New Jersey, I would like to have Mike Janis answer.

Senator **LAUTENBERG**. The question applies to the general recommendations to keep these housing authorities on the straight and narrow.

Mr. **JANIS**. Senator, all of the recommendations in the report to the Secretary have been accepted. They are all in the process of being implemented at this point.

Senator **LAUTENBERG**. Does HUD have enough staff to adequately oversee these housing authorities now?

Secretary **KEMP**. We think we do; yes.

Senator **LAUTENBERG**. Finally, do you have any reason to think that the problems that we found in New Jersey are any different than problems or were any worse than what we see in other parts of the country?

TYPES AND SCOPE OF PROBLEMS IDENTIFIED

Mr. **JANIS**. Senator, as part of our followup to that, we did do a 10-city visit to look at the same kinds of problems. There are the same general types of problems around the country. In New Jersey, however, we did find a greater concentration of some of those administrative problems than we found elsewhere.

But the generic problems are what we are addressing in the followup to that report. The specific housing agency issues in New Jersey are being addressed by Newark and the regional office in New York.

Senator LAUTENBERG. I guess, and I conclude, Madam Chair, with this, that the lesson that we learned, if the situation in New Jersey was one on the extreme, is that these problems can develop.

We in government have a responsibility to watch the store as they say. Though it is embarrassing, we do not consider that New Jersey is particularly more delinquent in these things than any other State. We do say we are more diligent about pursuing these. My advice is let us keep an eye open.

Thank you, Madam Chair.

LEADERSHIP OF PHA'S

Secretary KEMP. Could I just add; there was one overriding lesson in this area. That is, how important it is to get the very best men and women in the leadership of those public housing authorities.

I have been accused in the past of perhaps being a little bit too critical. I want to pay my respects to some of the outstanding leaders of public housing authorities in this country. At the same time, recognize that there are some troubled and problem areas. You have alluded to that in your questions.

So, getting the best men and women. Getting integrity. Getting leadership, courage, guts. Those are qualities of leadership that this country needs at every level. I appreciate the chance to respond.

Senator LAUTENBERG. Thank you, Mr. Secretary.

Senator MIKULSKI [presiding]. Senator Kerrey.

CONCERNS ON THREE NEBRASKA PROJECTS

Senator KERREY. Mr. Secretary, I have got three questions on Nebraska projects that—two to three, the problems have been resolved—but they still leave some policy questions. One is the Tommy Rose Gardens operation. You do not need to answer now. You can answer later. I have got a lot of questions in regards to all three of these things. I would like to get into some questioning of the HOPE project rather than spend my time on this.

TOMMY ROSE GARDENS

But from 1986 to 1989, roughly, HUD examined Tommy Rose Gardens. It is a 100-unit, privately owned operation in Omaha. From 1986 to 1989, HUD operated it and examined it and thought it was OK. Then in 1990 we got word that there was a problem. We went out and looked at it.

The city of Omaha took a look at it. They said it was substandard. HUD again examined it, I believe, in March 1990, said it was below average. In short, from the first of the year of 1990 until November 1990 when HUD finally came and did a full examination, it went from OK to all of the units in which people were living were below standard and nonlivable.

You have since decertified them. I appreciate that. The problem still remains, and the question is, How does it happen and what kind of oversight do we put in place to make sure that these things are operating in the future? I have got a series of questions on that.

SELLING OF PRIVATELY OWNED PROJECT

The second one was an inquiry that was made to me by a resident, again, of a privately owned project, an elderly project. It is primarily 236, but there is some section 8 in there. With HUD approval, the owners began to prioritize and sell off the units. The question then comes from the resident, what do we do if we do not want to buy? What happens to us?

OMAHA TRIBAL HOUSING AUTHORITY

Again, I am looking for some general guidance to some specific questions that relate to that project. The third one, and again, all of these can be answered at a later time, was the Omaha Tribe in Nebraska. The Tribal Housing Authority put in an application for a $92,000 grant.

They were notified that they were approved for $307,000, that they had been upgraded to $307,000. Then they were notified that, that in fact, was a mistake. They incurred some costs. I do not know how frequent this kind of mistake is. I call it to your attention in open hearing because it did create a bit of a local problem.

Secretary KEMP. Let me say to you, I appreciate you bringing it up. My Deputy, Al DelliBovi and our General Deputy, Mike Janis, will be in your office tomorrow, bright and early, to discuss all three answers. I would be there myself if I were not in Chicago at the Henry Horner Public Housing Community. I appreciate the questions.

Senator KERREY. If you were going to be in Chicago tonight, I would accuse you of going to the Bulls' game. [Laughter.]

Secretary KEMP. Do you think I would sidetrack the war on poverty to go see Michael Jordan and Magic Johnson? The answer is, "Yes."

Senator KERREY. Let me talk to you a little bit. I actually like—of the HOPE/HOME project efforts as Senator Lautenberg, I like the HOME effort. Of the HOPE effort, I have got some concerns about I and II. I like III. I am curious. I must say that I recognize that you are someone who gets extremely enthusiastic about things that you decide need to be done.

APPEARANCE ON M'LAUGHLIN GROUP

I must also confess that I saw you on McLaughlin not long ago where I got the unmistakable conclusion that those Democrats that had some reservation about the program were defenders of socialism. I found myself not necessarily being provoked, but desiring of being able to get into a discussion.

Secretary KEMP. I am a provocateur. So, I was on a show that was provocative. I answered it in a provocative way. I did not mean to call you or anybody else that disagree with me a socialist. I was simply saying, Bob, that in trying to find a metaphor for what has happened to our inner-city economies, I likened it unto some of the third world socialist nations in terms of underdevelopment.

I did not mean to be pejorative or to attack someone for an idea that has long past failed. I see it as a failed experiment. There is underdevelopment, despair, pain, not enough jobs, not enough private ownership of property in our inner cities.

The one metaphor I used was either a third world socialist or an Eastern European socialist. But I did not mean to suggest that people who disagree with me are socialist. I certainly would not want that to be conveyed here today.

Senator KERREY. I understand that entirely. I was not offended by it. I was intrigued by it. It seems to me, in my particular case is what I do is I come to the argument as an appropriator. I have had a lot of contact now with housing authority people in Nebraska, both the members of the board and the staff.

OWNERSHIP AS AN OPTION

What I am concerned about is that we not apply this home ownership and tenant ownership in an ideological fashion. That is to say—and I hear in your testimony, in fact, just the opposite. I do not hear you—I hear it being much more of a pragmatic application than an ideological application.

In short, I hear you saying that there are some times when you are saying tenant ownership works and sometimes it does not work. I mean, in your testimony that seems to be what you are saying.

Secretary KEMP. I do not know if I can answer it yes or no. I can answer it briefly by saying that it may not be what people want to do in every instance, but in the Bush administration we want to give them every opportunity to avail themselves of the chance to do it.

If they do not want to that is one thing. But I do not want them to lose sight of what their goals may be for ownership of property. I am absolutely convinced ideologically as well as in a utilitarian fashion that ownership of property gives people an asset that can help boost them out of poverty.

Whereas, just transfer payment type of welfare programs lead to consumption and the perpetuation of poverty. I am trying to think of how we can end the condition of dependence. I think that is going to take asset accumulation; that is, property, jobs, good education, and home ownership.

Senator KERREY. Let me point out some things that I see particularly in HOPE I and HOPE II. Again, the project itself—because it seems to me that we have also got some other barriers. For example, the 30-percent income test.

A reasonable thing to have in a regulation can itself become a problem when somebody goes back to work and finds that the amount of rent that they have to pay goes up, their benefits are going down at the other end, there is a substantial barrier for somebody wanting to get back to work as well.

THEMES IN RECENT NONFICTION

It seems to me—I am an advocate for universal health care for the same reason because it has become a tremendous barrier. In fact, my reading of "There Are No Children Here" causes me to want to do much more than take a look at tenant ownership as a problem of trying to break the cycle of poverty and despair that you see in Chicago and in inner cities, including Omaha, NE.

Secretary KEMP. I appreciate the fact that you have read that book. I recommend it to everybody—that and another book by Michael Sherraden, the professor of urbanology at Washington University in St. Louis called "Assets and the Poor."

I think by the time you read Nick Lemann and Alex Kotlowitz and Michael Sherraden's books, you come to a conclusion that even Kerrey and Kemp or Democrats and Republicans ought to agree upon, which is that the only real way out of poverty is to give people the boots and the straps—that is, the assets—whether they are health care or education or just a chance to grow up and play ball on a field of dreams rather than having a killing field in the middle of your public housing community.

All of these things impact upon the lives of those children or those people in public housing. So, I am convinced that we really need to alter the environment and stop thinking of people as perpetually dependent upon government assistance and begin to look at ways to use our welfare system as a spring board out of poverty as opposed to just a perpetual dependency.

So, I applaud the conclusions to which I think you are coming and I am struggling with this same problem. We found that a family in Martin Luther King public housing in New York City, a woman who got married had her rent jump from $60 to $600 or $700, according to the New York Times. We want rent ceilings for those families.

The system is antifamily. It is anti-independence, if you will. For that very reason, I am reading everything I can get my hands on. I have spent 2 years spending a lot of time in inner-city public housing communities. Your contribution to the debate is very welcome. I think we may be finding a synthesis between the left and the right.

I do not mean left in an ideological way, but in terms the center left and the center right of the political spectrum. I think we can come up with some synthesis that can get something done. That is why HOPE and HOME were passed so overwhelmingly. I think it did reach a consensus. I hope you are not disappointed, though, in HOPE I because you would not want to say to somebody living in a public housing community that they could not form a co-op and an equity arrangement.

PHILOSOPHY BEHIND OWNERSHIP

Senator KERREY. I am not disappointed so long as it does not become an ideological litmus test. You either are for tenant ownership or you are against. Then we will divide up the cans and decide who goes forward or not from that.

Secretary KEMP. I may have given that impression for which I must, if not apologize, at least clarify very quickly. I admit that my rhetoric and enthusiasm sometimes get carried away. I want to assure everybody that when we are talking about our budget, we are talking about 1.3 percent of public housing residents in the United States of America in the next 2 years getting a chance to own.

That is not, we do not think, an ideological battle, but there is an ideology behind it. It is more American than right or left. I do not mean American in the sense that I am wearing red, white and blue, but American in the sense of ownership. I think people do want to own, but if they do not that is their right. We support them as well, Bob.

Senator KERREY. My own view on that, may I share that we are to provide a playing field with government efforts. It gives people the opportunity to own. There is no question that that is a part of the American dream.

One of the elements that I see is that I have spent time as a consequence of Tommy Rose looked at the projects themselves. My State director, by the way, grew up in the projects and went on to a successful business career. These experiences cause me to look at the program itself as a temporary program.

But if it is a temporary program, what I have got to try to do is to support individuals as they try to raise their standard of living so they are able to either purchase in the market place with rent or they are able to purchase in the marketplace with HOME.

Thus, I come unmistakably to the conclusion, and rather quickly to the conclusion, that health care is a huge barrier. Medicaid is a terrible program, what it does to people. I find myself in agony at my own inability to come up with a sufficient amount of funds to fully fund WIC, maternal and infant health care block grants, and other sorts of efforts.

I find myself calling into question previous assumptions even that I have had about the advantages of AFDC and food stamps because it seems to me what we need to look for in those areas is more generalized benefits that does not attach a stigma to the condition.

Though I am enthusiastic about HOME, I am enthusiastic at least a little bit about HOPE. I have got some questioning about some of the elements of HOPE, I find myself also saying that with the current situation that I think that there are some things we can do, but it is much more apt that we are going to be successful if we tie it to the larger community rather than separating the program out for individuals who happen to be in poverty.

REFORM OF WELFARE SYSTEM

Secretary KEMP. I know we are running out of time, but let me just say that I agree with what I believe to be the premise or the predicate of your statement. I think the welfare system is a trap. It needs to be dramatically changed. I am a conservative but I use the word "radical" because, frankly, you cannot conserve that which is not working.

The status quo stinks as far as I am concerned. I do not mean the people—they are precious. I think the system is treating them as if they are not a resource. One thing I appreciate about the Chair, she is absolutely on fire with this idea of tapping the resource that is represented in our Nation's urban centers.

AFDC, for instance, says that a woman on welfare cannot have more than $1,000 of assets in the bank at any one time. Imagine, we punish people for saving who happen to be low income because they are on welfare. That is a stigma. You and I need to change the system. This is absolutely inconsistent with what we want to encourage in society; that is, saving, assets, property, and accumulation of wealth.

I would be happy to work with any member of this committee, and in particular the two who are here today, to find some common ground through which we can dramatically change the way we treat low-income people. I think it is a national scandal. It is embarrassing to the democracies of the East to having us losing out in our own inner-city communities.

Senator KERREY. Madam Chair, I have a series of questions I would like to submit for later answering.

Senator MIKULSKI. Without objection, Senator Kerrey's questions will be submitted to the record.

LEAD-BASED PAINT

I would like to just pick up on the things that have been raised by Senator Kerrey and also by yourself, Mr. Secretary. When we talk about public housing there are several aspects of public housing that contribute to the decline of health in its own population, one of which is lead; lead paint. For all of the studies and research indicate that once lead paint or lead dust or whatever it is, chips, find its way into a child's bloodstream, there is a tremendous human cost and a tremendous cost to Medicaid for that child's blood to be chelated.

There is permanent brain damage and a variety of other neurological and intellectual impairments that occur, essentially, and we contribute to that because we own the housing. The other is, that when these children go to facilities equipped to clean their blood out, it costs about $8,000 per child often paid for under Medicaid.

Sometimes as much as $30,000 to $40,000 per family only for them to return to the same circumstances. Revolving door brain damage. As you know, this subcommittee has had a great deal of concern about the lead paint issue.

So, let me go first then to what progress is being made and some questions in terms of the management structure. One of the big criticisms has been the diffuse management of lead paint issues. Your current lead paint person is the Assistant Secretary for Policy Development and Research.

OFFICE RESPONSIBILITY FOR LEAD PAINT

His shop is well intentioned, but very often the answer to every problem we raise is let us do another study. We feel that it is time for studies to be over. Last year's report directed the Department to consolidate its lead abatement activities under one office, the Office of Public and Indian Housing, because that is where the mandate to abate lead is.

Would you share with us why that was not established, what your intentions are so that there will be a point person really that you could evaluate, hold accountable, and so on for really moving the regulations, the training of staff, the monitoring for compliance of our own legislative framework and your regulatory guidelines?

Secretary **Kemp**. Well, I appreciate your concern and your question. You have every right to bring it up and with the passion that you are accustomed to focusing on issues that are of great concern to your State as well as to low- and moderate-income people everywhere.

So, I appreciate that. Let me also give you credit for the tremendous tenacity with which you have taken on this issue. Let me say to you with all of the sincerity that I can muster, looking at each other, you know, eyeball to eyeball, we consider this to be a profound moral as well as a political obligation at HUD.

We are not just studying, but I would hope that as we approach this issue, Madam Chair, that we look upon it, No. 1, as it covers the plethora of responsibilities at HUD. One reason that it was centered in John Weicher's shop was not to study it to death, but to give it a centrality, to give it some focus, to put it where we could coordinate from housing to public and Indian housing, the Community Development Block Grant Program, HOPE, HOME, and the various elements that are encompassed by HUD.

There is an important distinction, Madam Chair, to be made between operating programs and research and demonstration. Much of the work being done by HUD, is so far research and also demonstration. The Office of Policy Development and Research, headed up by John Weicher, has the staff, and it is my feeling they have the experience. There is tremendous coordination and cooperation in the different elements at HUD. So, they are kind of coordinating the activity.

We have proposed a $25 million set-aside within HOME for an abatement program. We have conducted the first nationwide survey of lead-based paint in housing that only before that we could guess at the extent of the problem. The abatement demonstration on FHA-owned housing is going forward.

Senator **Mikulski**. Mr. Secretary, you have a mandate in public housing. When we talk about working in CDBG and so on, then we are involved in private-sector housing or a variety of others. We have a mandate in public housing. The lead paint regulations as I understand it, have come out and are not called regulations.

LEAD-BASED PAINT GUIDELINES

They are called guidelines. We suggested to get the lead out of the guidelines and you issued them on August 13, 1990. Here was what the issuing statement said:

> Although the guidelines are not regulations, HUD strongly recommends that PHAs utilize them.

However, strongly recommending is not making them mandatory. That means, it is not legally binding. So, when we talk about this being a moral issue, we have the framework which you, yourself, which HUD has agreed to coming out in kind of a voluntary way.

We appreciate the words "strongly recommending," and then it kind of leaves it up to the public housing authorities to do that. We could then go through risk assessment, testing, training of staff, who is there in the field and I could go on.

Secretary KEMP. Your criticism——

Senator MIKULSKI. See, I want us to be a model landlord. I want public housing—it is very hard as you know, Mr. Secretary, to turn to private-sector landlords, even section 8 landlords, and say, "Get the lead out" when essentially we are not doing it in what we own, what we control.

ACCOMPLISHMENTS UNDER LEAD PAINT EFFORT

Secretary KEMP. Let me give you an idea of what we have done. Under CIAP we have told the PHA's that they are required to identify their testing and abatement needs over a timeframe of the next 5 years. HUD, in cooperation with the EPA, is now training all public housing agency staffs using those guidelines as you have properly called them.

We have notified all PHA's that they must complete testing of all family units by the end of 1994. That is required by law. The Department is developing our plans for dealing with lead paint until it can be fully abated. I would like Mike Janis, though, to take the—Mike would you elaborate please on the answer on public and Indian housing?

Mr. JANIS. One of the things I would like to open with is to say that the Office of Policy Development and Research and I work exceedingly close together. Public and Indian housing is very, very actively involved in the lead-based paint situation.

Senator, the question of concern is about the guidelines; one of the reasons we made them interim guidelines is because the field is so new. It is, in a sense, amazing that the interim guidelines represent the first composite document that we are aware of in the Federal Government that deals with the whole situation of lead-based paint from testing, the interim containment situation, to abatement.

The field is so new and it is so changing that we have found—with our expert panel that has helped develop those interim guidelines—that we were concerned about making the guidelines regulations. It is a new field. Our feeling is that as people become more experienced, there will be new technology to make the guidelines regulations.

We would have to go through a cumbersome regulatory review process to change them. I think you are probably aware that we have encouraged and were successful in getting a master insurance policy approved. As a part of the requirement for that master insurance policy, the PHA must comply with the interim guidelines in that policy.

We think we have gone very far in terms of making the guidelines not regulatory, not mandatory, but strongly encouraged. Right now we have training going on by Georgia Tech funded through HUD and EPA. We are hoping to reach all public and Indian housing agencies. Again, in 1990, we trained our staff and housing agencies.

TRAINING SESSIONS

Senator MIKULSKI. Mr. Janis, let me ask some specifics because I am going to have to get to my markup. I do not mean to interrupt. First of all, we do know it is a new field or a beginning field. I understand that HUD recently had its first training session for housing authorities in Atlanta. Is that correct?

Mr. JANIS. Yes.

Senator MIKULSKI. Would you tell us how many more sessions are planned throughout the country and when you think you will have completed your overall training?

Mr. JANIS. I believe we have 14 additional sessions planned throughout the country.

Senator MIKULSKI. Within what timeframe?

Mr. JANIS. By the end of this fiscal year, by September 30.

Senator MIKULSKI. So 14 more by October 1, 1991?

Mr. JANIS. Yes.

Senator MIKULSKI. Is that correct?

Mr. JANIS. Yes.

Senator MIKULSKI. That would be a significant achievement.

Mr. JANIS. One of the things we were discouraged with was the attendance. We are strongly encouraging attendance. In fact, we are sending letters through the HUD area managers.

Senator MIKULSKI. You see, I think you do not have big attendance because of the words "strongly recommend." Strongly recommend does not do it.

Mr. JANIS. We are also in the process of including in that letter saying that in the future we are intending to make training a requirement for future funding for lead-based paint. So, we are going to lay the responsibility on the housing agencies that they must avail themselves of training.

Senator MIKULSKI. You see, those are the kinds of things I am trying to get at. I think your handling of the master insurance policy is a very important tool. Let me just go to one last question on this because again, I do not want to be late for this allocation.

LABORATORY STANDARDS

Laboratory standards in this new field. I understand that HUD does not have uniformly mandated lab standards for those labs that certify the results of either preabatement or postabatement standards. I understand a recent test of labs done by Georgia Tech to see how proficient they were, had error rates above 50 percent for some labs, even those considered accredited by the normal associations.

Is this survey true and if so, what are you going to do about it?

Mr. JANIS. Let me in the spirit of cooperation, ask John Weicher of Policy Development and Research.

Mr. WEICHER. Madam Chairman, we have heard that also and we are looking into that right now to find out if, in fact, that is correct. This is new information to us. Certification of laboratory—standards of laboratories—has not been PD&R's responsibility at this point within the Department. We are looking at that.

Senator MIKULSKI. What is not your responsibility?

Mr. WEICHER. The certification—we are not involved with certifying laboratories.

Senator MIKULSKI. No; but you are involved in setting standards.

Mr. WEICHER. That is right; yes.

Senator Mikulski. So, if you do find out that there was an error rate of 50 percent, what are you going to do about it?

Mr. Weicher. Well, first we are going to verify, in fact, that that is the situation.

Senator Mikulski. But if you verify and that is true, what will you do about it?

Mr. Weicher. If we verify that the error rate is 50 percent, we will work with the laboratories and we will look at what is going on and at that point——

Senator Mikulski. Will you set uniform laboratory standards?

Mr. Weicher. We will certainly look closely at setting uniform laboratory standards——

Senator Mikulski. So, in other words, you are going to look closely, but you will not commit to establishing uniformly mandated standards?

Mr. Weicher. Not until we see exactly what the situation is, Madam Chair. I do not want to rule that out, certainly. But I do not want to make a commitment until I know the specifics.

Senator Mikulski. Well, I think this leaves you a can of worms, Mr. Secretary. First of all, should litigation occur, if you have faulty lab tests, that is going to shoot the hell out of anything. Second, there will be no real validity to the compliance of it.

I think the lack of uniformly mandated laboratory standards leaves you open to all kinds of problems if litigation occurs. As Mr. Janis has said, in this kind of field, litigation does occur. It is a new field. There is a lot about it. Uniform laboratory standards for either preabatement or postabatement is absolutely crucial.

That is one of the tools that a public housing authority can use to say, we complied, here is our test, this is what we tried to do, et cetera, because so much will be good faith efforts. I think looking closely at it just does not do it.

We have uniform laboratory standards for mammograms, for other laboratory testing. Uniform lab standards for drug testing in the work place. This is not like an occult science.

Secretary Kemp. Look, you have us here. Let me take this back to the drawing board and come back at you, with you and your staff, and give you a more satisfactory answer.

Senator Mikulski. I agree.

Secretary Kemp. I do not want to stand on what I have heard here today any more than you do. So, I will take it back and personally——

Senator Mikulski. And I think you can understand why I am moving to that precision because I think it is in the interest that when—if public housing and your leadership makes good faith efforts, then I want it to literally be able to stand the test.

Secretary Kemp. You have heard me say it is both politically and morally a requirement. I do not feel that we have a sufficiently acceptable answer for the questions that you have raised. You are proper in bringing them up. We will come back to you with a much more comprehensive and consistent answer as to our policy. We appreciate you raising questions about this issue.

Senator Mikulski. Thank you very much, Mr. Secretary. We look forward to the answers.

Secretary Kemp. Thank you.

Senator **Mikulski**. There are many other issues we could go over with you. Time is moving. As I said, when Senator Byrd calls, we will be there. So, I am going to conclude this hearing as scheduled.

ADDITIONAL COMMITTEE QUESTIONS

We will submit the balance of the questions for response in the record.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR MIKULSKI

BUDGET PRIORITIES - STRATEGIC PLANNING

SENATOR MIKULSKI: Your prepared statement indicates that 4 million families fall into the "worst case need" category; i.e., pay more than 50% of income for substandard housing and receive no housing assistance; and that this is an increase of 200,000 families since 1987. (a) Can you explain why more people are falling through the cracks when Congress has been steadily increasing funds for housing?

ANSWER: There are actually less than 4 million families with "worst case" housing needs. The HUD report entitled Priority Housing Problems and Worst Case Housing Needs in 1989, which was recently submitted to the Senate Committee on Appropriations' Subcommittee on VA-HUD-Independent Agencies, estimated that in 1989, 3.6 million unassisted elderly or family very low-income renter households had "worst case" needs, down from 3.8 million in 1987 and 4.0 million in 1985. In response to the committee's explicit request and NAHA's redefinition of "families" to include single persons, the report also, for the first time, counts as "worst case" another 1.4 million very low-income renter households that have equally severe problems but contain only nonelderly unrelated individuals.

The decline since 1985 in worst case needs, despite continued growth in the total number of very low-income renter households, implies that fewer rather than more people are "falling through the cracks." This improvement can be attributed not only to the economic recovery and increased funds for housing, but also to better targeting that assistance to "worst case" households through implementation of the preference rule. Because of the unfortunate relaxations of the preference rule allowed in the NAHA, however, (in Secs. 501 and 545), HUD is concerned that this improvement will slow.

SENATOR MIKULSKI: Don't these figures suggest that we need to add to the existing housing stock; something that HOME would do, but HOPE would not?

ANSWER: First, it is not true that the problem would be solved by additions to the stock. The HUD report shows that severe rent burdens were not only the dominant problems facing worst case renters, but also that they were the only housing problem for almost three-fourths of these households. These 3.6 million households paid more than half of their income for housing that was both adequate and uncrowded.

Second, while HOPE will not provide new construction, it can increase the stock in several ways--through the revitalization of housing that is currently vacant, through replacement housing required under HOPE I, and through moving poor people to economic independence.

SENATOR MIKULSKI: The National Affordable Housing Act provided for spending $2.50 on capacity building through HOME for every $1.00 spent on HOPE for homeownership. Why does your budget drastically cut the relative amount of money to be spent on HOME?

ANSWER: The Department has requested HOPE and HOME at approximately equal levels, reflecting the priorities we place on both programs.

We look forward to implementing the new programs authorized by the National Affordable Housing Act, while maintaining our commitment to ongoing programs such as CDBG, public housing modernization, and other important responsibilities. We believe that the Administration's request for funding of HOPE and HOME accurately reflects the priority we have placed on these new programs, within the overall constraints of the budget. The Department proposes to fund HOME at a level lower than that authorized under the National Affordable Housing Act in order to allow States and local governments time to develop experience in delivering housing assistance through the new HOME funding mechanism. In comparison, the Department has broad experience in providing homeownership assistance to low-income families similar to those served by HOPE and thus requested full funding for the HOPE grant programs.

SENATOR MIKULSKI: Please provide the Committee a strategic plan on how the Department plans to deal with what amounts to a nationwide waiting list of over 4 million people, and over what period of time will the list be eliminated?

ANSWER: The HUD report, Priority Housing Problems and "Worst Case" Needs in 1989, as requested by Congress, also sets forth the basic elements of a strategic plan that outlines how the Federal Government, despite limited fiscal resources, can help to eliminate or substantially reduce the number of families and individuals who fall into this worst case needs category.

The critical elements of HUD's proposed strategic plan to reduce unmet ~~needs dis~~cussed in the report include:

- Continued preference in assistance for worst case families, through changes in legislation such as reversing the relaxation of the preference rule included in NAHA;

- Reliance on tenant-based rental certificates and vouchers, which can most cheaply, directly, appropriately and efficiently serve the great bulk of those with worst case needs, many of them in their current housing;

- Strengthening families, who have high and growing shares of worst case needs, through the Family Self-sufficiency and HOPE efforts;

- Using HOME funds cost-effectively to meet worst case needs; and

- Reducing regulatory and discriminatory barriers to affordable housing.

HOME PROGRAM

SENATOR MIKULSKI: What is HUD's rationale for not permitting a state to use mortgage revenue bonds as matching funds, while permitting the use of general obligation bonds, particularly since (1) no such distinction was made in the authorizing legislation, and (2) the federal government is not obligated to cover any defaults on such bonds?

ANSWER: The HOME regulations do not explicitly permit or prohibit any particular kind of bond financing as a source of match. In fact, with the exception of funds derived from CDBG grants (explicitly prohibited by the statute as a source of match, except for administration), the source of matching funds is not the focus of the regulations. Rather, the focus is what happens once such funds are invested in a HOME project, i.e. whether the repayments are permanently dedicated to the HOME program.

The law requires any repayments of HOME funds or of matching funds to be deposited in the recipient state's or city's HOME Investment Trust Fund account for re-use only for other HOME projects. Thus, to count as a match, the proceeds from any state or local bond issue must be used as either outright grants to HOME projects or as loans whose repayments would be dedicated permanently to the equivalent of a revolving loan fund for future HOME projects.

Repayments of loans made from mortgage revenue bond proceeds are normally used to repay the bondholders; such bond proceeds would thus be only temporarily invested in the HOME program. General obligation bondholders, however, are normally repaid from the issuing jurisdiction's own appropriated funds in future years. Lending general obligation bond proceeds to HOME projects and permanently dedicating the repayments to the HOME investment trust fund for future HOME projects would allow the full face value of those loans to count as match when the foregone yield is not the result of Federal tax exemption.

It should be noted, however, that even when the full amount of the loan (such as from mortgage revenue bonds) cannot count as a match because the repayments are not dedicated, the value of any foregone yield could count as match when the foregone yield is not the result of Federal tax exemption.

SENATOR MIKULSKI: Would HUD support a 1-year statutory exemption to waive the non-federal matching requirement given that there is currently a sharp recession in virtually every region of the country?

ANSWER: No. HUD does not believe such a 1-year exemption will be necessary. Match is only required, by the end of a fiscal year, for any HOME funds drawn down (i.e., expended) during that fiscal year. The first HOME grants will not be awarded until March or April 1992. Since it will take considerable time after grant obligation for participating jurisdictions to identify eligible projects to which to commit HOME funds, and since even once committed a project can take up to a year or more to be completed, the amount of HOME funds that will actually be expended by the end of fiscal year 1992 will be relatively small, thus generating a minimal matching requirement.

Moreover, HUD is automatically crediting every jurisdiction with the maximum 7 percent of HOME funds that can be matched with administrative costs. Since they will be credited up front with having provided 7 percent of their entire first-year grant, it is anticipated that even jurisdictions with some draw down of HOME funds in 1992 will be able to meet their first-year match requirements from these administrative costs.

Finally, the HOME regulations will provide that those communities with high poverty levels and low per capita income, who can demonstrate difficulty in meeting the match, will be able to request a reduction in their match requirements during the first 3 years (the statute provides for up to a 75 percent reduction the first year, 50 percent the second, and 25 percent the third). Thus, there is no justification for an across-the-board waiver of matching requirements for the first year of the program.

SENATOR MIKULSKI: Wouldn't this be preferable to a time-consuming case-by-case waiver process that would just delay implementation of HOME?

ANSWER: A blanket exemption for all jurisdictions would certainly be administratively simpler than having to review individual requests. Nevertheless, for the reasons stated above, such an across-the-board exemption is not justified. The HOME regulations will provide that any requests for waivers of the matching requirement (up to the limits provided by law) would be submitted as part of the jurisdiction's program description (its formal application for HOME funding) and would be reviewed within the same time frame--generally no more than 30 days from receipt of the program description--as would otherwise be needed for the processing of the initial HOME grants. The review process would not delay the implementation of HOME.

SENATOR MIKULSKI: Since non-profit groups must get 15 percent of all HOME funds, what is HUD doing to develop capacity-building among these non-profits so that they will be able to react quickly to the availability of funds?

ANSWER: Many non-profits already possess the capacity to take full advantage of the 15 percent set-aside. For those that lack such capacity, the statute authorizes $14 million annually for grants and contracts to non-profit intermediary organizations to provide capacity-building technical assistance to local community housing development organizations. HUD intends to obligate these technical assistance funds as quickly as possible during the first year of the program, once appropriated funds are made available.

In the meantime, through existing technical assistance contract resources funded under pre-HOME statutory authorities, efforts will be made to provide the necessary education and organizational support to non-profits.

SENATOR MIKULSKI: Has HUD held any training sessions with non-profits? If so, where were they held, when, who attended, and what was presented?

ANSWER: During the past 6 months, HUD has participated in a number of conferences, generally sponsored by public interest groups, providing briefings and initial training on the HOME Program. One such series, sponsored by the National Low Income Housing Coalition, was specifically directed to non-profit housing organizations. Briefings were held in Washington, New York, Boston, Atlanta, Chicago, Fort Worth, San Francisco, and Los Angeles. Non-profits have also attended in large numbers both national and regional conferences sponsored by the National Association of Housing and Redevelopment Officials, the National Community Development Association, the National League of Cities, the United States Conference of Mayors, and the National Association of Counties. HUD officials have led workshops at all such conferences.

However, it is not anticipated that training specifically designed to build organizational capacity of non-profits will be provided directly by HUD in the future. Rather, as noted above, such training will be provided in in-depth workshops, as well as by one-on-one on-site assistance, by technical assistance providers operating under HUD grants and contracts.

PRESERVATION/PREPAYMENT

SENATOR MIKULSKI: How many units will require subsidies to retain their low-income designation; how does your current estimate compare with last year's figures you gave the Committee; over what period of time will these costs be incurred; and what caused the change in your estimates between last year and this year?

ANSWER: During fiscal year 1992, an estimated 38,700 units will require some form of subsidy incentives. The fiscal year 1992 estimates are based on a recent analysis of the 1987 survey data which took into account the changes in the prepayment and preservation statute, Title VI of the 1990 National Affordable Housing Act. The fiscal year 1991 estimate was based on a continuation of the "old" prepayment and preservation law, Title II of the 1987 Housing and Community Development Act.

SENATOR MIKULSKI: Of the total number of preservation projects, how many plans of action have been filed in fiscal year 1991 and how does that compare with the department's report that 54 projects (with a total of 8,200 units) would require subsidies to avoid repayment in 1991?

ANSWER: Currently some 65 Plans of Action have been filed during fiscal year 1991, all under Title II of the Housing and Community Development Act. We estimate that 55-60 will be approved and funded before the end of the fiscal year.

SENATOR MIKULSKI: Why does your anticipated 1993 Budget request assume only $1.1 billion for preservation, while your April report to this Committee says the number is over $2.6 billion?

ANSWER: The fiscal year 1993 Budget request included in the report only reflects the fiscal year 1992 request adjusted for inflation. As we gain more experience with the Notices of Intent, and Plans of Action are received, HUD will be able to provide better Budget information well in advance of program funding needs. The final prepayment regulation will be published before the President's Fiscal Year 1993 Budget is submitted to Congress. The Budget request will at that time more accurately reflect the volume of transactions requiring funding in fiscal year 1993.

SENATOR MIKULSKI: Does the Administration intend to fully implement the preservation provisions of last year's housing authorization bill?

ANSWER: Yes, the Administration intends to fully implement the preservation provisions of the National Affordable Housing Act. A proposed rule was published on May 2, 1991 with a 60-day public comment period.

SENATOR MIKULSKI: Your report on preservation, submitted to the Committee in April, indicates there are serious data gaps in your estimates. For example, the report suggests ... "very little

information exists on such important matters as the current market value and capital improvement needs of these [preservation] projects." When will you be in a position to provide more than computer model generated estimates?

ANSWER: As stated in the HUD report of April 18, 1991, page 20, there is a $1.8 million study of HUD's multifamily inventory being conducted with research and technology funds due in the spring of 1992. This study will enable the Department to better estimate capital needs of prepayment-eligible projects. Market values will be available on a project-by-project basis as project owners file Notices of Intent. The computer model for estimating future needs will be updated as more project-specific information is received and analyzed.

COMMUNITY DEVELOPMENT BLOCK GRANTS

SENATOR MIKULSKI: Given your own commitment to reducing "Washington -imposed" solutions to problems, and the President's own proposals to give greater control of certain programs to states, why are you proposing to cut the CDBG program by 9 percent, or $300 million, in 1992 -- since it is one of the few HUD programs that provides flexibility to governors, mayors, and county executives?

ANSWER: The Administration's fiscal year 1992 request for the CDBG program is consistent with recent levels of funding approved by Congress. Given the priority needs for other HUD programs of assistance, the proposed level is appropriate.

SENATOR MIKULSKI: How are communities that rely on CDBG for economic development supposed to maintain their efforts to turn the recession around by promoting job creation and capital investment if this cut is adopted.

ANSWER: We have no indication that an incremental appropriation of $300 million in fiscal year 1992 would have any significant impact in turning the recession around because these funds essentially would not be spent until 1993 and 1994.

SENATOR MIKULSKI: Isn't this $300 million cut really a back-door tax increase that you're imposing on states and cities if they want to maintain current services? Doesn't a cut in CDBG funding almost guarantee either increased local taxes or reduced services?

ANSWER: I do not view the Administration's proposal in that light. We are faced with severe competition for limited Federal funds. The new kit of tools provided by the passage of the National Affordable Housing Act will have a substantial impact on CDBG recipient's ability to improve housing and services without increasing local taxes.

SENATOR MIKULSKI: Do you have any analysis of need or demand that supports your proposed reduction of the CDBG Program?

ANSWER: Difficult choices had to be made in funding the array of programs authorized by the National Affordable Housing Act. The Department believes the CDBG funding level proposed is adequate when taken in combination with the effects of other parts of the Administration's budget request for HUD.

SENATOR MIKULSKI: Isn't it true that between 1980 and 1990 the number of entitlement communities for CDBG increased 30 percent, but that the level of funding declined by 27 percent during the same period?

ANSWER: Yes.

COMMUNITY DEVELOPMENT BLOCK GRANTS

SENATOR MIKULSKI: Hasn't this trend reduced the average size of an entitlement community's allocation by 43 %, from $4.1 million in 1980, to just $2.3 million 1990?

ANSWER: That is one way of stating the case. Just as important, the program has become much more targetted with at least 70 percent of a grantee's CDBG funds now required to be used for activities that benefit persons of low- and moderate-income over a 3-year period. This compares to 60 percent prior to fiscal year 1991 and 51 percent prior to fiscal year 1988.

SENATOR MIKULSKI: Do you think it's fair or logical for the federal government to impose costly requirements on cities and then reduce the amount of money we give them?

ANSWER: The Department believes that greater efforts should be made to reduce administrative and regulatory burdens on local government, but it is only fair to point out that many of the costly requirements that have been imposed on cities come from legislation by enacted mandates. It is not clear at all that these are new costly CDBG requirements.

SENATOR MIKULSKI: Hasn't the Tax Reform Act of 1986 also reduced the cities' ability to raise funds on their own?

ANSWER: HUD has not done an analysis of this issue.

SENATOR MIKULSKI: Why is it taking half the year to get the FY 1991 Indian CDBG money out? When will it be made available? What about the entitlement and small cities money?

ANSWER: The NAHA required HUD to publish a rule for public comment on the selection criteria. The proposed rule was published June 21, 1991. The final rule is expected in October 1991 with applications due in December 1991. The earliest fiscal year 1991 awards can be made will be in March 1992. The fiscal year 1991 funds for entitled jurisdictions and States were issued in December 1990 and January 1991 to our Field Offices.

LEAD-BASED PAINT

SENATOR MIKULSKI: HHS set a deadline of 20 years, i.e., the year 2011, to eliminate childhood lead poisoning. Do you agree with that target date?

ANSWER: The Department considers the goal of eliminating childhood lead poisoning by 2011 to be a ambitious and laudable one. While the achievement of such a goal within that timeframe cannot be assured, we will do what is necessary to support the elimination of this health hazard in housing.

SENATOR MIKULSKI: If so, how can you justify the proposed reduction of $230 million in the public housing modernization program for 1992, the only HUD program which will be used directly to attack the lead poisoning problem?

ANSWER: The $230 million reflects a decrease from the amount appropriated. On the other hand, far from requesting decreases, the Department has consistently requested an increased level of modernization funding. In Fiscal Year 1990, we requested $1 billion and in Fiscal Year 1991, we requested $1,847,492,000. These requests were in line with our judgment as to what PHAs/IHAs would be able to effectively utilize in a given year. The Department's Budget request for Fiscal Year 1992 modernization funds, in the amount of $2,266,967,000, was developed, in part, based on our best judgment of the PHAs/IHAs capacity to effectively use these new funds. The amount requested in Fiscal Year 1992 is, in fact, a $419,475,000 increase, or 23 percent, over the amount requested in Fiscal Year 1991. The entire field of lead based paint testing and abatement reflects a new and growing industry which will, like any new industry, take time to develop and be able to meet the sizeable need which we estimate exists. We should be in the position of providing a reasonable and measured response that addresses this important issue and which, at the same time, is responsive to all other competing financial needs in these times of budgetary constraints.

Additionally, the modernization program is not the only source of funding which can be used to address the lead poisoning problem. PHAs/IHAs may also use operating subsidies to address this problem, not to mention CDBG funds and other local funds which may be available. PHAs/IHAs must by law complete their testing activities, by December 1994, and then plan their abatement strategies. Funds would thus have to be available to meet these needs, once identified.

SENATOR MIKULSKI: Isn't this reduction completely contradictory to your own recent report to the Committee suggesting that fully half of the public housing units built before 1980 are considered to be "priority" lead paint hazards?

ANSWER: Our current estimate is that approximately 12 percent of all family public housing units have "priority" hazards, not 50 percent, which was the preliminary estimate reported to the

Committee on April 19, 1991. Units with priority hazards, according to our definition, have peeling lead-based paint and/or excessive levels of lead in dust.

At the time of the April report, we had not yet analyzed data on priority hazards in public housing from the 1990 HUD national survey of lead-based paint in housing, although we did have preliminary survey data on the percentage of public housing units with lead-based paint. The high April estimate for priority hazards was based on the fact that the 1989 American Housing Survey indicates a much higher incidence of peeling paint in public housing than in privately owned housing. We assumed that the incidence of peeling paint was the same for lead-based paint as for unleaded paint, and we assumed that the statistical relationship between peeling lead-based paint and priority hazards would be the same in public housing as in private housing, which had been analyzed in preparing the Comprehensive and Workable Plan for the Abatement of Lead-Based Paint in Privately Owned Housing: A Report to Congress (December 1990). Based on further analysis of the national survey of lead-based paint in housing, it appears that our assumptions may not have been valid. Although the percentage of public housing units with lead-based paint is higher than for privately owned housing, the surface area covered by such paint is much lower on average for public housing than for private housing. Therefore, there is less lead paint per unit that can potentially contaminate the environment. This is especially true on exterior surfaces, which are less frequently painted in public housing than in private housing. As reported in the Comprehensive and Workable Plan for Private Housing, there is an association between the presence of exterior peeling lead paint and high dust lead (which is most often found in window wells). It appears from early analysis of the national survey that exterior peeling lead paint occurs less frequently in public housing than in private housing. The survey also indicates that the proportion of units with excessive lead dust is much lower in public housing than in private housing -- about 6 percent compared with 18 percent. (All figures are for housing built prior to 1980.)

SENATOR MIKULSKI: Last year, you advised this Committee of a 1986 estimate of 413,000 public housing units in need of lead paint abatement. What is your current estimate, and what kind of timetable have you set up for dealing with them?

ANSWER: Based on data contained in the report entitled "Goals for the Reduction of Lead-Paint Hazard in HUD-Assisted Rental Housing" dated April 19, 1991, of the 860,000 units of public housing built before 1980, it is now estimated that approximately 776,000 units may contain at least one building component with lead paint. PHAs/IHAs are mandated by law to randomly test all pre-1978 family developments by December 1994. They are not required to meet any specific schedule within that time period, nor are they required to meet any set abatement schedule. We will, however, encourage them to abate quickly once a hazard is identified.

SENATOR MIKULSKI: Do you have any data that demonstrates uniform application of your lead paint guidelines by comparing data from one housing authority that's begun lead paint abatement in each region of the country?

ANSWER: The Department is developing a monitoring tool which will enable us to determine whether or not and how PHAs/IHAs are implementing the Interim Guidelines. Once this system is finalized and monitoring is conducted, a comparison can be made between PHAs/IHAs within and across Region(s) regarding the application of the Interim Guidelines. Until a system for data collection is in place, staff will continue to monitor LBP testing and abatement as part of their ongoing review of modernization work.

SENATOR MIKULSKI: If you have no such data, when will you begin a survey to find out the answer to this question and when will the committee receive this survey's results?

ANSWER: We are in the process of surveying PHAs as part of the training courses being conducted. Those data will be compiled and analyzed at the conclusion of the training sessions. A copy of the assessment will be provided to the Committee at the conclusion of the training. The monitoring tool, which is currently being developed, will be used on an ongoing basis.

RISK ASSESSMENTS AND TESTING

SENATOR MIKULSKI: What is the Department's current estimate of the number of public housing units that must be tested and abated; and what is the cost estimate for testing and abatement?

ANSWER: Our current estimate of the number of units that must be tested and abated is 776,000. At this time, we are unable to provide an estimate of the funds needed to fund all testing and abatement needs. That data is expected to be available as the result of the public housing abatement demonstration.

SENATOR MIKULSKI: Last year's appropriation act said that housing authorities could apply to use public housing modernization funds to do lead paint testing and abatement independent of applying for a modernization grant. Why is the Department permitting the Office of General Counsel to thwart the Committee's intent?

ANSWER: The Office of General Counsel has not acted with the intention of thwarting the Committee's intent. In accordance with the statutory requirements of Section 14 of the United States Housing Act of 1937, as amended (the Act), an application must be made to receive modernization funds. Any deviation from this application process would have been a direct violation of statutory requirements. In an effort to meet Congressional intent to ensure that modernization funds are available for lead based paint testing and abatement, interim regulations implementing the 1987 McKinney

Amendment Act, were published in the Federal Register on April 15, 1991. These interim regulations established a new modernization category known as Lead Based Paint (LBP) modernization. The Fiscal Year 1991 CIAP Processing Notice and Notice of Fund Availability identify the LBP category which specifically addresses situations where PHAs/IHAs need funds for testing and/or abatement.

SENATOR MIKULSKI: Are each of HUD's field offices hiring at least one qualified industrial hygienist or someone of equivalent training and expertise, to deal with lead paint?

ANSWER: Our intention is to use existing staff for the provision of technical assistance and guidance in the area of lead-based paint. It must be recognized that lead based paint (LBP) is a new area and that knowledge is limited, both at the HUD level as well as at the PHA/IHA level. The issues brought forth in the area of LBP transcend issues of housing and extend to health as well as environmental concerns. The ultimate responsibility for addressing 11Hthe environmental issues related to LBP rests with the contractor and the PHA/IHA. The key to effective testing abatement is adequate and effective PHA knowledge of the process. Thus, the Department is currently working with the Centers for Disease Control and the Environmental Protection Agency to implement a clearinghouse on lead issues. The purpose of the clearinghouse will be to gather, compile, and disseminate information regarding all aspects of lead within health, housing, and the environment. As new information becomes available, the clearinghouse will serve as the center for the dissemination of information and technical assistance in carrying out such efforts. A "lead hotline" will provide answers to generic questions, make referrals to agencies with specific responsibilities, etc. Local initiatives and responsibility must be nurtured in order to give full attention to the importance of LBP. We strongly support local involvement and are working closely with EPA in the development of courses geared towards educating and training contractors and inspectors to address environmental as well as other related concerns. We will look more closely at the increased use of industrial hygienists, at least at the PHA level.

SENATOR MIKULSKI: If not, then how are you guaranteeing that PHAs/IHAs are complying with the guidelines and formulating abatement plans in the proper fashion -- through contractors?

ANSWER: First, the use of the guidelines is not mandatory. Therefore, we have no basis upon which to force or guarantee compliance. We believe, however, that through increased training currently ongoing, we will have a better grasp of this situation. In addition to monitoring of modernization projects, our staff will utilize a monitoring tool, which is currently being developed in concert with EPA and OSHA, to assess compliance with the Interim Guidelines. Additionally, all bid specifications are reviewed by our engineers which ensure that testing and abatement activities are addressed. Beyond this, modernization funds can be used to enable a housing authority to hire a consultant to assist in the formulation of abatement plans and ensure compliance with the guidelines. The CIAP Handbook acknowledges costs which are necessary to comply with LBP requirements as eligible CIAP costs. These include consultant services. The interim LBP regulations (published on April 15, 1991), at 24 CFR Part 965.706(d)(2), specifically note that the services of an industrial hygienist may be used in the final inspection and certification of treatment in abatement.

SENATOR MIKULSKI: Wouldn't such a policy of hiring a technical expert in each field office guarantee that HUD is developing the internal, institutional capacity to begin to deal with this crisis?

ANSWER: The use of existing staff ensures that individuals with internal, institutional knowledge of our programs are the providers of the technical assistance and guidance that PHAs/IHAs need. In this constantly evolving field, we have made sure that our staff is kept abreast of issues through the provision of training, conference calls, memoranda and Notices. We have also taken steps to identify staff at the Regional and Field offices that would serve as contacts for lead based paint issues. Such actions ensure that we continue to develop the internal, institutional capacity to address these issues.

TRAINING

SENATOR MIKULSKI: I understand HUD recently held its first training session for housing authorities in Atlanta. Could you tell us who attended, who gave the training, who from HUD was present for the session, and how many more such sessions are planned throughout the country?

ANSWER: To date, we have held three sessions in Atlanta which were attended by a total of 82 housing authority representatives. The training is being conducted by Georgia Tech Research Institute and other leading authorities in the housing, medical, legal, and environmental health fields along with contractors, designers, and insurance specialists. HUD staff, who also participated in conducting the training, had over 20 years of experience in the field of lead-based paint. HUD staff will also be participating in the remaining 12 sessions which will be held in a number of cities across the country. A copy of the course brochure which lists course sessions, is attached. In order to ensure full and continued participation by PHA/IHAs, we have sent out letters from Secretary Kemp, Assistant Secretary Schiff, and local Field Office Managers wherein PHA/IHAs have been mandated to attend along with Regional and Field Office HUD staff.

Attachment

Georgia Tech
RESEARCH INSTITUTE

The Department of Housing & Urban Development Presents...

LEAD-BASED PAINT IN PUBLIC AND INDIAN HOUSING: HOW HOUSING AUTHORITIES CAN MEET THE CHALLENGE

The Department of Housing and Urban Development, the Environmental Protection Agency and the Georgia Institute of Technology are conducting a series of courses designed exclusively for public housing agencies and Indian housing authorities.

Lead poisoning is the number one disease among children. The Centers for Disease Control estimates that roughly 17% of all children suffer from preventable learning disabilities, retardation, and other lead-related health problems. In some neighborhoods, over 50% of the children have too much lead in their bodies. Lead poisoning is also among the top ten epidemics in adults. Since lead poisoning often has no symptoms, most cases are not recognized, resulting in a "silent epidemic."

Old lead-based paint is now the most important source of lead poisoning in our environment. Housing Authorities across the nation are increasingly facing the complex and difficult question of how to prevent lead poisoning in their developments. In many respects, the experience in public housing will guide the rest of the nation in eradicating a condition that robs our children of their intellectual capabilities, and squanders our future.

The sessions will be conducted by leading authorities in the housing, medical, legal, and environmental health fields. Contractors, designers, and insurance specialists will provide down-to-earth experience on what works well and what doesn't. Speakers will address the nuts and bolts problems associated with implementing the HUD Lead-Based Paint Guidelines:

- Health and Legal Aspects of Lead Based Paint Poisoning
- Federal Requirements
- Getting Started
  - Assessing the Risk
  - Contracting
  - Specs and Plans Development
- Testing for the Presence of Lead
  - What's Involved
  - How to Monitor Testing Activities
- Abatement Activities
  - How to Integrate Lead Abatement Activities into CIAP
  - In-Place Management
- Cleanup and Clearance
- Insurance
- Hazardous Waste
- Worker Protection
- A Housing Authority's Perspective

By examining actual case studies, this course will teach participants how to efficiently and safely manage lead-based paint hazards in public and Indian housing.

Speakers

Course Directors:

Carolyn Newton	Dept of Housing & Urban Dev
David E. Jacobs, CIH	Georgia Institute of Technology
Vickie Ainslie	Georgia Institute of Technology
Kyle Clark	Sedgwick James Insurance
Mark Demyanek, CSP, CIH	Georgia Institute of Technology
Robert Elias, Ph.D.	Env. Protection Agency
Carol Foley	Georgia Institute of Technology
Lorne K. Garrettson, M.D.	Emory School of Medicine
Gayle Goewey	Georgia Institute of Technology
Steve M. Hays, PE, CIH	Gobbell Hays Partners, Inc.
John Hiscox	Macon Housing Authority
Annette M. Hurley	Georgia Institute of Technology
Jim Keck	Lead-Tec Associates
Chris Papanicolopoulos, Ph.D.	Georgia Institute of Technology
Steven Tise, AIA	Tise Architects, Inc.
Jennifer Willis	Cater & Willis, New Orleans
Dan Wuenschel	Cambridge Housing Authority
John Zilka	Camm Construction Company

Georgia Tech reserves the right to provide substitute speakers.

Course Fee and Registration

Registration will be on a first-come basis. Since space is limited, we encourage you to complete and send the registration form as soon as possible.

To encourage participation, the cost of this course has been subsidized by HUD and EPA. Each attendee will be charged $65. This covers the cost of all course materials, including a course notebook. Costs associated with travel and meals are the responsibility of each housing authority. The cost associated with participation in this course is an eligible CIAP or operating reserve expense.

To register, please complete the attached form and return it to the Georgia Tech Continuing Education office with payment, purchase order, or VISA or MasterCard number. Registrants will be permitted to attend only if arrangements for payment have been made prior to the course start.

To register by phone, call (404) 894-2400 or 1-800-325-5007. Georgia Tech reserves the right to cancel courses if there is an insufficient number of registrants. In such an event, or if you cancel your registration 10 days prior to the course, we will refund the fee in full. Other costs incurred by the enrollee of canceled programs are the responsibility of the enrollee.

Courses and Locations

San Francisco	July 11-12
Chicago	July 25-26
Atlanta	July 30-31
Kansas City	August 7-8
Providence, RI	August 14-15
Seattle	August 20-21
Denver	August 28-29
Philadelphia	September 11-12
Atlanta	September 18-19
Dallas	September 25-26

The dates and locations on this flyer supersede the dates and locations on the blue flyer you may have already received.

Travel Information

For the Atlanta courses, rooms have been reserved at the Penta Hotel, located at 590 W. Peachtree Street, Atlanta, Georgia, and offers a government rate of $69 single/double per room per night. For reservations, call the Penta Hotel at (404) 881-6000 or 1-800-633-0000 and refer to this Georgia Tech course. Courses outside Atlanta (except Seattle) will be held at Marriott Hotels in the individual cities. For reservations call (415) 692-9100 in San Francisco; (708) 240-0100 in Chicago; (816) 464-2200 in Kansas City; (401) 272-2400 in Providence, R.I.; (303) 279-9100 in Denver; (215) 365-4150 in Philadelphia; and (214) 233-4421 in Dallas. Or you may call Marriott's worldwide reservations at (800) 228-9290. The course in Seattle will take place at the Wyndham Garden Hotel, (206) 244-6666. Refer to the HUD Lead Based Paint program when making your reservation in order to obtain the special government rate.

Delta Air Lines offers a special rate to Georgia Tech course attendees. Certain restrictions may apply. For information and reservations, call 1-800-241-6760 and reference File C0086. Budget Rent-A-Car also offers special rates to course attendees. For more information, call collect (404) 530-3000 or 1-800-772-3773 and reference rate code #VNRI/GTRI.

More Information

For more information on this course, please contact Georgia Tech's Training Programs Office at (404) 894-7430. To register by phone, call (404) 894-2400 or 1-800-325-5007.

SECTION 8

SENATOR MIKULSKI: In September 1989 testimony before this Committee, HUD said it would have its Section 8 data problems corrected by the end of fiscal year 1992. A recent HUD report to the Committee now says there will be no final data system in place until fiscal year 1996. Why has the projection for a comprehensive solution to this problem slipped by almost 4 years?

ANSWER: HUD remains committed to having a basic system of financial and program controls for Section 8 in place and operational by the end of 1992. HUD also intends to pursue a longer-term effort at integrating and up-dating all of the Department's automated systems. Currently, there are 70 different systems in operation throughout HUD, and the lack of systems integration leads to serious gaps in our ability to monitor programs properly--and also contributes to duplication of records and poor control over data quality.

The process of totally redesigning and integrating HUD's data systems will take many years, however, given the number of systems involved. Because the material weaknesses in Section 8 are so widespread and serious, the Department is proceeding with the development of interim control systems which will deal with the basic issues of data quality, tenant eligibility, and payment processing controls immediately. This system will be in place by the end of 1992--and will deal with existing Section 8 material weaknesses--while the design and implementation of HUD's overall integrated financial management system is still underway.

Essentially, the interim system will directly address the immediate weaknesses in the Section 8 program and the abuses which have been identified in audits, while HUD simultaneously addresses the broader issues of full systems integration, improved monitoring, processing efficiency and technology under its long-term plan.

SENATOR MIKULSKI: How much will it cost over the timeframe you're now estimating to fix this problem, and does your Budget request (and your budget run-out beyond 1992) include the funds needed to meet the problem?

ANSWER: Long-term cost estimates for HUD's system integration efforts are due shortly from the contractor working on this project. After the estimates are received and accepted by the Department, they will be provided to the Committee.

SENATOR MIKULSKI: What accounts for the large jump of almost $700 million, or 40 percent in the amount you estimate is needed for Section 8 amendments in 1992?

ANSWER: The Section 8 amendment estimates for fiscal year 1992 contained in the Budget are based upon the "Report to Congress on Section 8 Amendment Needs" submitted to the Appropriations Committees on December 7, 1990.

As noted in the Report, the estimates were based upon the best information available at the time. However, the reliability of these projections is limited because of weaknesses in the existing program and accounting information systems and because of the manner in which amendments have been funded in prior years.

Basically, because of budgetary constraints, contract amendments have been funded on a short-term, 1, 2 or 3-year basis rather than for the remaining term of the contract. This means that new appropriations are needed each year simply to replace previous amendment funding that has run out. Neither of our two major accounting systems for Section 8 (AHAS and SEAS) contain data on when these short-term amendments expire and the information is currently available only on a project-specific basis as part of each Field Office's annual review of project budgets.

The large increase in estimated amendment needs is therefore premised on the need to address the additional cost associated with liquidated short-term amendments as well as additional projected cost increases. In other words, a portion of the need addresses the shortfall which occurs when a short-term amendment runs out and the balance is associated with projected increases above that restored contract base. There are potential offsets to the amendment needs, the major one being contract renewals. As large numbers of older contracts expire and are replaced with new five year contracts, the amendment needs tend to decrease. These fully funded replacement contracts serve to reduce the need for amendments.

SENATOR MIKULSKI: Can you provide for us a state-by-state breakout of the number of units? If not, why not?

ANSWER: The Department is currently in the process of verifying amendment needs for fiscal year 1992 on a project by project basis. Data regarding fiscal year 1992 amendment estimates and the number of contracts amended will be available by the end of August.

SENATOR MIKULSKI: Your December 1990 Amendments Report on contract amendments said there was a shortfall in fiscal year 1991 of almost $500 million in Section 8 amendments, yet you did not seek a supplemental, despite an intense push for supplemental funds for new programs. What happened to alleviate the need for these funds, and if such a shortfall existed, why did you carryover $70 million of your 1990 funds into 1991?

ANSWER: The December 1990 Amendments Report projected estimated amendment needs based upon the best information available at the time but the reliability of these projections is limited. This is due to weaknesses in the existing program and accounting information systems and because of the manner in which amendments have been funded in prior years.

The Report projected a potential 1991 need of $1.1 billion for Certificate amendment contracts, compared to $768 million requested in the Budget. The higher estimate was premised upon a number of assumptions on the current funding status of contracts which could not be confirmed with any available systems or accounting data. One of the largest areas of uncertainty was the impact on current amendment needs of older Certificate contract increments that were expiring and being replaced with new, fully funded 5-year contracts. As the older increments expired and were replaced, they were expected to produce an offset to growing amendment needs. However, the extent of the offset could not be readily quantified.

Because of the uncertainty of this projection, the Department determined that the overage in certificates, should it occur, could be funded by shortening the term of amendments provided in other categories such as Project Reserves. As a result, amendment terms were limited to 2 years in order to conserve budget authority. If the estimated bulge in one year certificate amendments did occur, the Department was prepared to request a reprogramming to finance the shortfall with amendment funds held back in other categories. Based upon the results of a Field Survey completed in June, the bulge estimated in the Amendment Report has not occurred and the usage in fiscal year 1991 will not exceed the certificate amendment line in the Budget.

Amendment funds in the amount of $70 million did, in fact, carry forward from fiscal year 1990 into fiscal year 1991--including $18 million available for certificates. It carried forward because critical fiscal year 1990 amendment needs had been satisfied and the amounts could more effectively be utilized in fiscal year 1991 by adding them to new appropriations for amendments.

SENATOR MIKULSKI: Why hasn't the Department done any field surveys on the accuracy of its Section 8 data prior to submitting its 1992 budget?

ANSWER: The Department did not develop an approved methodology for conducting the Field Office Field Verification of expiring contracts until early November 1990 when Notice H 90-79 was released to the Field Offices. Because of the late date in the Budget cycle that the verification was initiated, only the fiscal year 1991 needs were requested initially in order to determine any Supplemental Appropriations requirements for fiscal year 1991 prior to the release of the 1992 Budget. The information from that verification was not completed until the final week of December.

The fiscal year 1992 verification was initiated after the release of the 1992 Budget and the results only recently became available. Because of the importance of having more accurate numbers for the Budget, the verification of Fiscal Year 1993 renewal needs is already underway and the need will be reflected in the President's 1993 Budget.

SENATOR MIKULSKI: What are the administrative impediments to doing field surveys in advance of the Budget submission?

ANSWER: Now that procedures and a methodology exists, the Department will be able to complete Field Office verification for fiscal year 1993 prior to submission of the fiscal year 1993 Budget. In fact, verification for fiscal year 1993 needs is underway and the results will be available in early fall of 1991. The major impediments to Field Office verifications are the following:

--Because of the poor condition of the systems and variances in the style and content of contracts from year of execution to year of execution and Region to Region, Field verification is time consuming and it is possible to miss contracts or to misinterpret data on the contracts.

--The earlier the verification is done, the more the potential variance in costs associated with future rates of increase. For example, the 1993 verification now underway will be utilizing current market contract FMRs and projecting 2 years forward using current economic assumptions. To the extent such assumptions prove inaccurate, costs following verification may vary. However, even with these impediments, the benefits associated with an earlier verification make a compelling argument to proceed.

SENATOR MIKULSKI: Aren't field surveys one of the only ways, until this data management system is fully in place, to prevent these potentially wide swings in the amount needed for either contract renewals or amendments?

ANSWER: Field Office verification is, at present, the only reasonable method available to accurately project contract renewal funding requirements for the Budget. The data systems do not contain data on expiration dates for contracts and estimating such dates using data residing in the systems has proven inaccurate.

Section 8 amendment requirements for certificates are projected using an automated system called SURVEY which is loaded and utilized by the Housing Field staff in assessing annual PHA Certificate Budgets. SURVEY assesses current requirements and also can be utilized to project the need for the following year. At present, there is no comparable method for projecting amendment requirements for project-based subsidy using data in the systems. Field Office-by-Field Office assessment is the only mechanism available.

FEDERAL HOUSING ADMINISTRATION FUND

SENATOR MIKULSKI: How much of the decline of the 73,000 single family homes financed through FHA in 1991 is due to the higher downpayment requirements imposed by last year's law?

ANSWER: As a result of implementation of the Reform legislation, the 1992 Budget estimated a loss of 12,028 unit applications, or 1.25 percent of the normal business expected under the MMI Fund. The estimate also included an additional 40,000 Section 235 refinancings.

In addition to the basic one million applications estimated each year, the 1991 Budget also included 67,400 new unit applications resulting from the higher mortgage limits proposed for that year and 30,000 Section 235 refinancings.

The following table compares the 1991 unit application estimates reflected in the 1991 and 1992 Budgets.

FISCAL YEAR 1991 APPLICATIONS

	In 1991 Budget	In 1992 Budget	Difference
Basic estimate	1,036,251	1,032,824	-3,427
"Drop-out" resulting from Reform legislation . .	...	-12,028	-12,028
Increase resulting from higher mortgage limits	67,356	NA	-67,356
Section 235 refinancing	30,000	40,000	+10,000
Total	1,133,607	1,060,796	-72,811

SENATOR MIKULSKI: Your proposal anticipates a further decline of 52,000 single family units in 1992, and attributes it to the end of refinancing Section 235 mortgage commitments in 1991, yet you also say there were only 23,000 section 235 refinancings in 1991. What accounts for the other 29,000 units? Is it due to the higher downpayment requirement?

ANSWER: The following table reflects unit applications by category including adjustments for "drop out" resulting from reform implementation:

	Estimate 1991	Estimate 1992	Difference
Basic unit applications	1,032,824	1,032,824	...
Reform drop-out	-12,028	-24,056	-12,028
Section 235 refinancing	40,000	...	-40,000
Total	1,060,796	1,008,768	-52,028

The 40,000 applications for Section 235 refinancings reflected in the total applications of 1,060,796 represent the "universe" of mortgages eligible for refinancing. Out of that total, only 23,000 are expected to actually refinance. However, in order to account for potentially higher Section 235 commitment usage, the FHA Budget included the figure reflecting the entire universe rather than just those which are expected to be refinanced.

SENATOR MIKULSKI: Given the fact that many first time home buyers are already being squeezed out of the market, due at least in part to last year's reforms, why is the Department proposing to administratively restrict the amount of closing costs that can be financed under an FHA single-family mortgage to 57 percent of the total amount of closing costs?

ANSWER: In its study of FHA's Mutual Mortgage Insurance Fund (the Fund) last year, Price Waterhouse pinpointed lack of homeowner equity as the main cause of FHA's large number of claims during the 1980s. This finding is consistent with every serious study of mortgage defaults. The 57 percent limit on closing costs increases homeowner equity. Without the 57 percent limit, the National Affordable Housing Act's loan-to-value caps alone would not result in reducing defaults on each year's business, which would jeopardize the achievement of the statutory capital targets. These capital targets are the minimum levels of capital necessary to enable the Fund to withstand moderately adverse economic conditions and therefore to achieve actuarial soundness. Furthermore, the added defaults would keep the total FHA default rate above 11 percent. Reducing the default rate below 11 percent was also a fundamental objective cited by the House and Senate conferees.

SENATOR MIKULSKI: What data do you have that supports your conclusion?

ANSWER: Price Waterhouse conducted simulations at various levels to determine the percentage of closing costs that could be financed. The focus of the simulations was to determine the maximum percentage of closing costs that could be financed while still meeting the capital requirements and lowering the overall default rate to below 11 percent. Different amounts were plugged into the Price Waterhouse model until the 57 percent cap was identified.

SENATOR MIKULSKI: Was this change mandated, or even mentioned, in the National Affordable Housing Act?

ANSWER: HUD believes that the 57 percent limit on closing costs was included in the agreement reached by the House and Senate conferees which led to the National Affordable Housing Act. In a letter dated March 7, 1991 to Chairman Gonzalez, Secretary Kemp made this point clear. All the conference discussions concerning FHA were based upon the Price Waterhouse analysis of the MMI Fund. Also, every policy option considered by the conferees set a limit on the share of closing costs that could be financed. (The discussion of these issues is reported on pages 26 through 40 of the transcript of the conference.)

SENATOR MIKULSKI: In 1989, Maryland had the highest closing costs in the country. What will your new rule mean for Maryland and other "high-cost" closing states?

ANSWER: The accounting firm of Price Waterhouse undertook a study of the Mutual Mortgage Insurance Fund (the Fund) to determine its actuarial soundness. The results of that study made it clear that there was an urgent need for FHA reform. Critical program changes were mandatory if the Fund was to remain solvent.

In implementing these changes, the volume of FHA activity may be minimally affected, but only in that some home purchases may have to be deferred until additional funds can be saved. The same holds true for states like Maryland that have higher closing costs. Some home purchases may have to be delayed until the additional funds are saved.

SENATOR MIKULSKI: I understand this restriction is to bring the net worth of FHA's Mutual Mortgage Insurance Fund up to the 1.25 capital standard. If so:

--Does this mean the capital standard won't be met without this regulation, or that it simply won't be met as fast?

--How much quicker can you reach the standard with this new regulation--several years, or is it a matter of months?

ANSWER: The statutory requirement calls for attaining a capital ratio of 1.25 percent by the end of fiscal 1992. The Price Waterhouse analysis recommended certain steps be taken to reach a 1.25 percent capital ratio. The minimum mortgagor equity requirements must be accompanied by the 57 percent limit on the financing of closing costs in order to have the best chance to meet the statutorily imposed deadline of the end of fiscal 1992. This combination may reach the 1.25 percent capital ratio, but without either regulation in place, the stability of the fund remains in doubt, and reaching the capital standard is questionable.

SENATOR MIKULSKI: What do your preliminary indications of your 1990 data on the status of FHA's MMI Fund tell you about the health of the fund--is it a positive cash flow?

ANSWER: This question must be addressed in two parts. First, Price Waterhouse is still conducting their audit of FHA's fiscal year 1990 financial statements prepared in accordance with generally accepted accounting principles. HUD anticipates it will deliver its report in July. Price Waterhouse is still reviewing the impact of the economy on the status of the fund and has not provided any estimates thus far.

In terms of cash flow, the MMI fund has received approximately $250 million in excess of disbursements through May, which has been invested in Treasury securities. This does not, however, equate to accrual based income. It is attributable, for the most part, to the receipt of premiums which will not be considered income until earned in future years ($170 million) and other temporary increases in payables ($80 million).

In the last 9 months, the MMI fund had positive cash flows in only 5 months. To put the $250 million increase in investments in perspective, it should be noted that the MMI fund has average monthly disbursements of over $270 million through May 1991. While positive cash flows are important to any economic entity, they do not mean, by themselves, that the entity is truly economically healthy or prospering in the long term.

GAO REPORT

SENATOR MIKULSKI: In February 1991, GAO reported on several deficiencies in FHA's procedures for monitoring participant's activities in the Section 203(b) insurance program. Has FHA compiled a consolidated instruction for its field offices to follow in monitoring FHA insurance activities? How much is budgeted in 1992 for this activity and how does it compare to data in GAO's analysis?

ANSWER: The GAO report on several deficiencies in FHA's procedures for monitoring participants represents a small but significant area that needs improvement. Many of the management initiatives that Secretary Kemp started at HUD, including the major FHA reforms needed to revitalize the MMI Fund, also place importance on issues like monitoring. Therefore, the Department is establishing consolidated monitoring instructions for field offices to follow. The compilation of consolidated monitoring instructions will be completed in fiscal year 1991. Therefore, a Budget allocation for this item is not required in 1992.

SENATOR MIKULSKI: Do you know how your other field offices compare to the two that GAO examined?

ANSWER: The Department has considered this issue and believes that the two offices that GAO visited are fairly representative of typical HUD field offices.

SENATOR MIKULSKI: Have you, the IG, or GAO followed up to ensure that procedures are now being followed?

ANSWER: Once the procedures are established in September of 1991, the Department will vigorously follow up to ensure that these steps are effective. The HUD Inspector General will play a role in this area and the Department would appreciate the continued involvement on the part of GAO.

SENATOR MIKULSKI: Can the losses to the FHA fund be attributed in any degree to this problem?

ANSWER: The losses to the FHA Fund cannot be attributable to processing and monitoring deficiencies. This issue is much more complex and is tied to broader underwriting and economic issues. While the Department is concerned with monitoring issues and cases where items like appraisal fraud have been documented, HUD is convinced that these issues do not have the overwhelming impact on the Fund that fundamental underwriting and economic issues do.

ELDERLY AND HANDICAPPED HOUSING

SENATOR MIKULSKI: Your May report to this Committee says the pipeline at the end of fiscal year 1991 will be 17,000 units; however, your Budget justification says the figure will be 32,000. What is the current pipeline backlog as of today, what will it be in your estimation at the end of fiscal year 1991, and what accounts for the wide variation in the reported magnitude of the pipeline?

ANSWER: As of June 1, 1991, the pipeline included approximately 24,500 units. We expect to start another 6,000 units this fiscal year. That, together with potential cancellations of approximately 1,000 units, should result in a pipeline of approximately 17,500 units by the end of September. The reason for the discrepancy is that the fiscal year 1991 selections (budgeted at 10,000 elderly units and 2,000 units for the disabled) are not included in the pipeline total. The fiscal year 1991 selections will not be made until mid-December, 1991.

SENATOR MIKULSKI: When will we get the pipeline down to 10,000 units or less?

ANSWER: The decrease in the pipeline depends on the size of the program. A normal pipeline should average about one and one-half times the annual funding level, inasmuch as applicants have 18 months from the date of fund reservation to reach start of construction. The pipeline should be at its largest immediately after a funding round is completed, and at its lowest immediately before a funding round is completed. A pipeline of 10,000 units or less therefore requires that the backlog be eliminated and the program average about 6,000 to 6,500 units per year of new funding.

SENATOR MIKULSKI: Isn't a fundamental assumption of your current trend in a declining pipeline based on the elimination of most funds for new 202 projects in '92 and future years?

ANSWER: No. The current attempt to reduce the pipeline is concentrated on projects that have been there for several years. The Department's goal is to start or cancel all fiscal year 1987 and earlier year reservations, and 70 percent of the fiscal year 1988 reservations by September 30, 1991. The Department also hopes to achieve starts of construction on at least 25 percent of the fiscal year 1989 reservations and at least 10 percent on the fiscal year 1990 reservations.

SENATOR MIKULSKI: Why are you proposing a sharp reduction of 65 percent in elderly and handicapped housing assistance for 1992, and are proposing to cut the number of new units by 83 percent (from 12,000 units to 2,000 units)?

ANSWER: The 12,000 unit program for fiscal year 1991 is atypical in that it greatly exceeds what has been available in recent years (7,000 units is more typical), and even exceeds what the House is recommending for fiscal year 1992. The reason for cutting the number of new units is that a substantial leasing program is proposed in addition to the new construction program. Leasing is less costly, and results in units being available to the elderly or disabled much more quickly.

In addition, in fiscal year 1992 the Department has earmarked a significant number of units for the elderly under the Section 8 Voucher program. We targeted 1,500 vouchers and $35.8 million in Budget authority for the Elderly Independence Demonstration Program. The Elderly Independence vouchers are to be used in conjunction with $10.4 million under the HOPE Grants to provide supportive services to the elderly, thus allowing the elderly to continue to live independently. This is a very cost effective way to provide additional housing assistance to the elderly.

SENATOR MIKULSKI: Doesn't this reduction fly in the face of the 1988 Select Committee on Aging report that said there are 8 elderly people waiting for each new elderly unit available, with a vacancy rate of less than 2 percent?

ANSWER: It is important to place the Budget request for Section 202 in the overall context of assisted housing for the elderly. Currently, for example, 40 percent of public housing units were occupied by elderly households. Elderly participation in the Section 8 certificate and voucher programs is also high--23 percent of the 1.2 million plus participating households. In fact, elderly households account for about 1.5 million of the 4.4 million households in HUD-assisted units. Farmers Home Administration provides additional housing for low income elderly. The 2,000 units for a combined development and leased housing program under Section 202, in conjunction with the 1,500 vouchers targeted for elderly in HOPE for Elderly Independence, is a total of 3,500 additional units of assistance for the elderly in HUD's fiscal year 1992 request. Combined with the Department's commitment of maintaining existing housing projects for the elderly and the continued availability of certificates and vouchers to elderly households, this assures that housing assistance for elderly people will continue to grow.

SENATOR MIKULSKI: Doesn't this major shortage of elderly and handicapped housing also contradict your stated rationale of reducing new housing by relying on "existing stock"?

ANSWER: By requesting new funding for development of Section 202 units, the Administration is supporting the concept of continued increase in the stock of new housing dedicated to elderly and handicapped people, within the limited resources that are available for meeting all housing needs. Providing assistance for leased housing is another mechanism to increase the total number of assisted units occupied by this population. We believe that this combination will work to address both issues - new housing stock, and the delivery of housing assistance more quickly and efficiently by avoiding the lengthy construction process. Furthermore, it provides a wider range of housing choices for elderly people, not all of whom wish to live in projects restricted to older residents. The flexibility afforded by having both forms of assistance available will enable better targeting of resources. As evidenced by figures cited in the Senate Special Committee on Aging report for 1990, the existence and size of Section 202 waiting lists varies by locality. Rather than generalizing about the whole country, the proposed mix provides the flexibility needed to deal with local markets. In cases where markets are very tight, new construction is appropriate. In markets where there is a high vacancy rate, leasing makes more sense.

SENATOR MIKULSKI: Also, if there's adequate existing stock, why try so hard to clear the pipeline?

ANSWER: The Department is actively monitoring the pre-construction pipeline to determine whether the projects in the pipeline are still viable. Congress has instructed HUD to monitor the feasibility of all projects to ensure the best use of federal funds. We believe that the Department has an obligation to expedite the construction of projects to help meet the housing needs of the elderly and handicapped. On the other hand, the Department will purge the pipeline of those pre-1988 projects that will not be able to start construction by the end of fiscal year 1991.

SENATOR MIKULSKI: Last year, the units were priced at $54,000 each; this year it's $76,000. What's the difference?

ANSWER: The estimated unit cost for housing for the elderly in fiscal year 1992 is $57,270; for housing for people with disabilities, the estimate is $55,540. The $76,000 per unit cost is the total Budget authority request, which includes amendments for pipeline projects with inadequate amounts reserved, as well as capital advances for new units. As a point of reference, the fiscal year 1990 fund reservations for housing for the elderly under Section 202 averaged $55,380 per unit in loan authority.

SENATOR MIKULSKI: Wasn't the purpose of the National Affordable Housing Act changes to make more 202 housing available at less cost? It appears your proposal is doing neither.

ANSWER: The Department is not proposing any significant cost increases beyond normal inflation. The Capital Grant provisions of the National Affordable Housing Act do change the Budgetary structure of the program by making the loan a capital advance, and thereby reducing the rental subsidy to an operating subsidy exclusive of debt service. This has the effect of decreasing the rental subsidy outlays.

However, from the capital advance perspective, outlays increase as loans are not repaid.

SENATOR MIKULSKI: You say you will cancel any pre-1988 projects that don't begin construction this year. How much is that in dollars and units? How much of your planned pipeline reduction do you attribute to cancellation, rather than beginning construction?

ANSWER: We have reviewed the pre-construction pipeline of pre-1988 fund reservations for Section 202 projects. There are 306 projects in the pre-construction pipeline with 10,055 units and mortgages totalling roughly $631 million. The Department anticipates the cancellation of approximately 1,200 units by the end of Fiscal Year 1991. Accordingly, we are estimating construction starts, from the pre-1988 pre-construction pipeline of roughly 8,800 units in fiscal year 1991.

SENATOR MIKULSKI: How many homes have you obtained from RTC for the 202 program?

ANSWER: None to our knowledge. The provisions relating to RTC properties were enacted as part of the National Affordable Housing Act, and therefore will take effect during the fiscal year 1991 funding round, with selections to be announced in mid-December 1991.

HOPE PROGRAM

SENATOR MIKULSKI: Is HOPE I the highest priority among the three HOPE programs?

ANSWER: In comparison to HOPE II and HOPE III, HOPE I is the highest priority because it has the largest inventory ready to move to homeownership. However, all three HOPE Homeownership programs are high priorities to the Department. Each will provide homeownership opportunities to a different segment of the low-income population and address different housing situations. The requested funding level for each program is the same as that authorized in the National Affordable Housing Act.

SENATOR MIKULSKI: Of the 2,000 units HUD was authorized to sell in 1987, confirm our understanding that only about 300-600 have been sold to date.

ANSWER: The number of units actually authorized in approved applications for the demonstration was 1,315 in 17 sites. To date, the Department has sold 420 units in 13 sites and expects to sell at least another 280 units by the end of the year. The units sold have been almost equally divided between single-family units and multifamily developments.

SENATOR MIKULSKI: Do they actually have tenants living in them?

ANSWER: A unit is not counted as sold unless the purchasing family lives in it.

SENATOR MIKULSKI: If it has taken 4 1/2 years to do 600, how can you possibly do 40,000 in one year?

ANSWER: The 5(h) program was a limited demonstration program that invited voluntary participation by PHAs. HOPE empowers residents with the right to buy and doesn't rely on the inefficient CIAP process which increases rehabilitation costs and causes long delays for completion of sales.

Moreover, it did not take the full time to convert all units. Some projects did take a long time because HUD did not provide all the tools needed for successful conversions. Under the demonstration, only a small amount of planning funds were available--necessitating that the PHA be willing to pay for legal fees, architectural and engineering work, and rehabilitation. In addition, no post-sale subsidies were provided and no displacement permitted, so conversions could only occur when a sufficient number of tenants were willing and could afford to purchase. Under HOPE, all the of expenses related to a conversion, as well as post-sale subsidies, can be provided, facilitating the conversion.

SENATOR MIKULSKI: What is the status of the two tenant homeownership projects we funded in last year's bill--Kenilworth-Parkside and Carr Square?

ANSWER: In last year's appropriations bill, Congress provided $5.9 million from Special Purpose Grants for post-sale subsidy conversion of the Carr Square public housing development. The Carr Square Resident Management Corporation is still working with the Department to develop a feasible homeownership plan, including rehabilitation and other activities.

Funds for the Kenilworth-Parkside post-sale subsidy conversion plan were provided from Fiscal Year 1990 appropriations for Section 8 certificates. The Kenilworth-Parkside Resident Management Corporation (RMC) has acquired 132 units and is in the process of completing rehabilitation on the remaining units.

In both cases, no funds were directly appropriated for rehabilitation or other activities related to conversion of these properties to homeownership. The newly authorized HOPE program provides a competitive process based on objective criteria for homeownership conversion by allowing RMCs, Public Housing Authorities (PHAs), nonprofits and other eligible organizations to apply for multi-purpose HOPE grants and win on the basis of merit.

SENATOR MIKULSKI: What is a realistic number for HOPE I in 1992--how many groups could we actually make tenant homebuyers, with actual sales taking place and residents moving in?

ANSWER: Based on the Department's per unit cost estimates and potential demand for the program, it is estimated that nearly 18,000 units in 177 projects could be sold to eligible entities in

1992. It must be remembered that sale to a group does not, and should not mean automatic pass-through sales to tenants. Properties may need rehabilitation; tenant purchasers will need counselling and organizational training; and economic development activities may need to be undertaken. All of this takes time and actual sales to tenants may occur several years later than the sale of the development to the recipient. In addition, because current tenants get a first priority to purchase, most purchasers will already be living in the development when it is converted.

SENATOR MIKULSKI: Can you identify those specific groups that meet these criteria (sales taking place in '92 and tenants actually taking up residence)?

ANSWER: Attached is a table summarizing existing demand for HOPE 1 funds and a packet listing sites which have expressed interest in participating in any of the three HOPE grants programs.

VOUCHERS AND CERTIFICATES

SENATOR MIKULSKI: Your response to GAO's recommendations in its report comparing vouchers and certificates (GAO/RCED-89-20, Feb. 16, 1989) indicated that you would begin to use the same basis in Budgeting for both certificates and vouchers. When will you be able to provide cost comparison data on the two methods?

ANSWER: Starting in fiscal year 1991, the Department used the same procedures for reserving funds for both rental certificates and rental vouchers. Because the new procedures take into account tenant contribution and Public Housing Authority's administrative expense for a 5-year period for each program, there should be no difference in cost.

SENATOR MIKULSKI: You also told GAO you are analyzing the success of voucher and certificate holders in finding adequate housing. Have you determined

--how successful recipients are in general in finding housing;

--the causes for inability to find housing

--the relative success of voucher vs. certificate holders in finding housing; and

--which method tends to cost the tenant the most?

ANSWER: The results from the Abt Associates study of the Housing Voucher Demonstration were issued in May 1990. This study, which was conducted in 20 PHAs across the country consisting of 18 large urban PHAs and two statewide PHAs, looked at how successful recipients were in general in finding housing, the relative success of voucher vs. certificate holders in finding housing and the costs to tenants of housing under both programs. On average 61 percent of Section 8 rental certificate families and 65 percent of rental voucher families were successful in finding housing. Rental voucher recipients in the sample had rents that on average were $10 a month or 7 percent higher than rental certificate program recipients. A contract has recently been awarded by PD&R to further study the experience of rental certificate and rental voucher holders to determine the reason for tenant success or failure in locating suitable housing. We expect that study to result in practical suggestions for action HUD and PHAs can take to increase success rates for both programs.

ADDITIONS TO THE SUPPLY OF AFFORDABLE HOUSING

SENATOR MIKULSKI: I understand there are 1,000,000 families on the waiting lists for public housing, and 800,000 families on Section 8 waiting lists. Why is the administration seeking no funds for new public and Indian housing units?

ANSWER: The needs of low-income families are better served through tenant-based assistance and rehabilitation of existing housing. Tenant-based programs provide housing resources to consumers much faster than the project-based programs. Vouchers can be provided to housing consumers in a matter of a few months from fund approval to the administering agencies. However, completion of public housing new development projects takes an average of four and a half years. It is true that this average is skewed by many projects that have taken eight to ten years, many because of litigation. The number of these projects, though, that skew the average have increasingly become more the norm than the exception.

The provision of assistance to low-income families through the development of public housing is also more costly than the provision of Section 8 certificates and vouchers. HUD has completed a number of studies which resulted in a determination that two certificates or vouchers can be obtained for every public housing unit.[1] "Rental assistance programs, whether Certificates or Vouchers, are much less costly than development programs in providing assistance to low-income families. They are less costly because they utilize the existing stock of housing, which command less rent than newly built units. The assistance costs of a Section 8 New Construction are about twice as high, per family, as the assistance costs using certificates or vouchers[2]. Because development costs in public housing (bricks and mortar, land, etc.) are much more expensive in public housing than in section 8, the assistance costs of a newly built public housing unit are more than twice those of Certificates or Vouchers"[3].

In addition, the tenant-based programs allow families flexibility to choose the location of their housing and cities can promote greater racial and economic integration. It is not a supply problem, but rather, a money problem.

Furthermore, with approximately 103,000 public housing units vacant out of the 1.3 million owned by PHAs (of which a portion is uninhabitable and in need of CIAP or rehabilitation), the Department, in accordance with appropriations acts, makes the development funding available, based on applications submitted, for the major reconstruction of obsolete existing public housing units.

The Fiscal Year 1992 budget also proposes an innovative approach to providing housing for Native Americans that represents a potential for major improvement in the delivery of these resources. The HOME program provides tribal governments with a program that is flexible, and can be modified locally as the situation demands.

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[1] Using Fiscal Year 1991 estimates in the 1992 Budget, the development of a public housing unit costs $73,376 and there would be an average operating subsidy cost of $1,523 per unit as compared to $5,831 per year for vouchers or $6,189 per year for certificates.

[2] Participation and Benefits in the Urban Section 8 Program, Wallace, et. al., Cambridge, Mass, Jan, 1981.

[3] The costs of HUD Multifamily Housing Programs, (USRE) Cambridge, Mass, May 1982.

The Administration is backing the commitment to Indian housing with significant financial resources. The Fiscal Year 1992 budget request provides $125 million for the Indian housing program under HOME and $29.15 million for Indian tribes under the Community Development Block Grant program. The level of funding requested for Indian housing is the greatest since 1985.

SENATOR MIKULSKI: For how many units of new housing did you receive requests for in 1991 from public and Indian housing authorities?

ANSWER: The Fiscal Year 1991 Notice of Fund Availability (published in the Federal Register 3-29-91) invited Public and Indian Housing Agencies (PHAs) to submit applications for public housing development and/or Major Reconstruction of Obsolete Public Housing (MROP) projects; pursuant to that NOFA, PHAs submitted applications for 34,233 units. Applications requesting a total of 11,621 units have been received from Indian housing authorities pursuant to the Fiscal Year 1991 Notice of Fund Availability.

DRUG ELIMINATION GRANTS

SENATOR MIKULSKI: Why are you not seeking drug prevention funds for federally-assisted, privately-owned housing?

ANSWER: Rent resources are available to private owners which can be adjusted accordingly to cover drug-related problems. Due to the limited amount of existing resources to fight this problem, all drug elimination grant funds should be targeted to meet the acute needs of public housing.

SENATOR MIKULSKI: Is it based on a perception of need, or something else?

ANSWER: While the need to fight drugs is acute in many communities, federal resources should be used to assist those communities that do not have available to them the array of options that private owners of federally-assisted housing have. We are willing to allow private owners access to our Office of Drug-Free Neighborhoods Clearinghouse for technical assistance to support them in their anti-drug efforts, but we do not believe that additional resources from the Department should be allocated.

LOW INCOME HOUSING TAX CREDITS

SENATOR MIKULSKI: Have your guidelines for reviewing low-income tax credit projects been published yet?
ANSWER: On Tuesday April 9, 1991 the Department's Office of Housing published in the Federal Register (Volume 56, No. 68) its Notice entitled "Administrative Guidelines; Limitations on Combining Other Government Assistance With HUD Housing Assistance. These guidelines are being used to review Low Income Housing Tax Credit housing projects which also utilize HUD assistance.

SENATOR MIKULSKI: Based on comments received, what changes will be made?
ANSWER: The Guidelines provided for a 60-day comment period which closed on June 10, 1991. The Department received comments from 20 respondents. The Department is currently reviewing these comments. Adjustments and modifications to the Guidelines, if appropriate, can only be accomplished after the Department has completed its review.

SENATOR MIKULSKI: How many new projects, representing how many units, are currently pending at HUD?
ANSWER: As of June 1, 1991, the Department is reviewing 27 housing projects which combine HUD assistance with the Low Income Housing Tax Credit. Nineteen of these cases are under review in HUD Headquarters while 8 projects are in the Field Offices for further processing. Data on a per unit basis is not routinely compiled, however it is being assembled pursuant to this inquiry and will be provided shortly.

SENATOR MIKULSKI: Your 3/8/91 letter to me on this subject indicated three Maryland projects were pending at HUD, and said two would be resolved by the end of that month. What is their status now, and what about the third one?
ANSWER: The housing projects which were referred to in your letter of February 8, 1991 have all been reviewed by the Department pursuant to the HUD "Guidelines," as necessary. The attached letter dated May 30, 1991, which was transmitted subsequent to our correspondence dated March 8, 1991 on these projects, provides descriptions of the Department's findings.

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
THE SECRETARY
WASHINGTON, D.C. 20410-0001

May 30, 1991

Honorable Barbara A. Mikulski
United States Senate
Washington, DC 20510

Dear Senator Mikulski:

Thank you for your letter of April 25, 1991, on behalf of Trudy McFall, Director of the Maryland Department of Housing and Community Development (CDA), who questions information provided in my March 8, 1991, letter about the Department's review of rental developments that will use both Low-Income Housing Tax Credits (LIHTC's) and other Federal housing subsidies or insurance. It was a pleasure to hear from you.

The Department has completed its review of Admiral Oaks, Town and Country, Circle Terrace (also known as Lake in the Woods), and Alcott Place. As Ms. McFall indicated in her April 8, 1991, letter to Ronald Rosenfeld, the Department has responded to the Maryland CDA about all of the projects except Alcott Place. Headquarters completed its review of Alcott Place on May 8, 1991, and forwarded its findings to HUD's Baltimore Field Office.

With regard to the Glenarden II project, HUD's Washington, D.C., Field Office assures me that a complete and thorough review of its case load reveals no current tax credit review nor any other related action pending. Should Ms. McFall's records reflect a different conclusion, I encourage her to contact Ms. Toni Thomas, Manager of the D.C. Field Office, at (202) 275-9206.

As for the Cambridge Park project, within the last month, the sponsor contacted Mr. Lee Palman, Chief of the Assisted Housing Management Branch in HUD's Baltimore Field Office, and requested that the project be placed on hold. As a result, all processing documents have been returned to the sponsor. Should Glenarden be submitted or Cambridge be resubmitted for consideration, the Department is certainly ready to expeditiously review these cases.

It has always been the Department's position to work with the various State agencies and the National Council of State Housing Agencies (NCSHA), its industry representative, in carrying out our similar Congressional charge, namely to review housing projects utilizing the Low-Income Housing Tax Credit (LIHTC). On May 12, 1991, the Department met with the NCSHA and various State agency representatives, including a member from CDA, to explore appropriate resolutions to the State's concerns about processing. The Department, like the CDA in its lending capacity, is concerned that mortgage amounts remain appropriate, and, if necessary, reserve and operating deficit funds be credited to support the project, remain with the project, and no be allowed to escape the project in the form of excess profits.

As a matter of policy, the Department first provides its conclusions to the Field Office, then notifies an applicant before informing the applicant's lender. In any case, the Department is happy to meet with all parties related to the project's financing.

The Department's meeting with the NCSHA was the first step in formalizing a process that will reflect the needs of all the allocating agencies. The Maryland CDA representative was invite to contact Bill Hill, Director, Operations Division, at (202) 708-0547, to assist in coordinating procedures between the CDA, HUD Headquarters, and its Baltimore Field Office.

I hope this information provides you with an update of thes projects and is helpful in preparing your response to Ms. McFall Thank you for your interest in the Department's programs.

Very sincerely yours,

Jack Kemp

Jack Kemp

CONSOLIDATED SUPPLY PROGRAM

SENATOR MIKULSKI: The Department has proposed eliminating the Consolidated Supply Program, in part because it is not cost effective. We cannot identify the cost of the program through fiscal year 1991 in HUD's budget submission, or the savings achieved from terminating it. What is the annual cost?

ANSWER: The CSP is part of the overall operation at both Headquarters and Field levels. For this reason, its annual costs cannot be separated from other functions performed by HUD staff. Without performing a detailed workmeasurment study, it is impossible to provide a specific dollar amount for the program. We can say, however, that at the Headquarters level 10 staff people administer the program along with other duties. In the Field, the program is monitored within the existing Field structure which contains approximately 143 engineers. We would like to note, however, that the major reason for terminating the program concerned the abuse of the program by PHAs as evidenced by the latest of a series of negative audits. The negative findings varied. Audites found, on average, PHAs could procure goods and services by 18 percent less if they procured competitively rather than through CSP. Other audits found that PHAs procured goods through CSP by way of ineligible "add-ons" which should have been procured competitively. In addition, we believe PHAs will have far broader and more appropriate procurement capability through the GSA schedule.

SENATOR MIKULSKI: Relatedly, HUD proposes several alternatives to the CSP, such as allowing PHAs to purchase through GSA, and offering procurement technical assistance. What will be the cost to HUD of the alternatives?

ANSWER: The use of GSA supply sources by PHAs has been recommended by this office. We anticipate its "cost" to the Department to be minimal since we would only have the administrative burden of assuring that the PHAs are both aware of the program and that they use it properly. We would not anticipate increased monitoring needs since that program has not had the type of abuse present in CSP. Secondly, were we to retain the CSP and provide the necessary oversight and technical assistance we think it is proper, we estimate at a minimum 58 additional people would be needed in the Field.

SENATOR MIKULSKI: The IG report recommended terminating the program or correcting identified deficiencies. What is the cost of correcting these deficiencies?

ANSWER: As we stated previously, we are unable to separate the cost of administering this program from other programs we run. However, we do expect that the cost of the alternative we are proposing, i.e. use of GSA supply sources, will be minimal.

SENATOR MIKULSKI: Spokespersons for PHAs have advised us that PHAs using the Consolidated Supply Program save as much as 20 percent--a total of $50 million in 1990. They contend that the cost analyses in the IG report only looked at PHAs' non-CSP purchases, rather than purchases in which the CSP catalog was used. Please confirm or refute this.

ANSWER: The IG looked at all aspects of the CSP procurement. They arrived at an estimate of 18 percent higher cost of CSP purchases vs. competitively bid purchases.

McKINNEY ACT PROGRAMS

Shelter Plus Care

SENATOR MIKULSKI: The McKinney Act encourages 50% of the Shelter Plus Care funds to go to selected target groups; i.e., the mentally ill and those with AIDS or substance problems. Your budget proposal suggests you intend to direct 100% of the funds to these groups. Is this correct?

ANSWER: We expect to approach 100 percent. Homeless persons who are severely mentally ill and those who have chronic problems with alcohol or other drugs, or both, have not yet been well served. The Shelter Plus Care program is designed to correct this deficiency.

The target populations require a high degree of services due to the persistence of their problems and the often recurrent nature of their illnesses. It is both a challenge to link them with housing and services and to assure their continuing to make use of those services. Given the choice, many providers will serve relatively easier homeless populations. So, the program is designed to compel providers to serve this population.

SENATOR MIKULSKI: What analysis or data do you have to support targeting half your homeless budget request to those with AIDS or substance or mental problems; e.g., is there data indicating that over half the homeless population is within these target groups?

ANSWER: Findings from ten studies supported by the National Institute of Mental Health indicate that approximately one-third of the homeless population suffer from severe and disabling mental illness such as schizophrenia, manic-depressive illness, or severe depression. The Rossi Survey of Studies on homelessness reached the same conclusion, and the Urban Institute study found that the levels were at least that, if not somewhat higher. Other homeless persons have mental illness of lesser severity.

Based on a number of studies, the National Institute on Alcohol Abuse and Alcoholism estimates that 35-40 percent of the homeless population have chronic alcohol problems. The Rossi and Urban Institute studies concur with this finding.

The incidence of drug abuse is less well documented. The National Institute on Drug Abuse, Rossi, and others estimate that about 10-20 percent of homeless persons have chronic problems with drugs other than alcohol. Homeless providers report an increase of homeless persons with drug abuse problems over the last 5 years.

Sadly, there is overlap with severely mentally ill persons also addicted to drugs and alcohol. Available research suggests that perhaps one-half of the severely mentally ill homeless also have alcohol or other drug problems.

By juxtaposing these statistics it can reasonably be concluded that at least half and perhaps up to two-thirds of the homeless population suffers from substance abuse, mental illness, or both. We also know that this population has been underserved by other public programs.

SENATOR MIKULSKI: Does the new Shelter Plus Care SRO Program differ from the original in any way other than focusing on certain target groups?

ANSWER: Yes, the programs differ in three important ways. First, in the Shelter Plus Care SRO program, applications for assistance would be prepared jointly by a governmental entity (State, local government, or tribe) and a public housing agency. While the annual contributions contract would be between HUD and the PHA, HUD would execute a second contract with the governmental entity to ensure that the matching supportive services are provided and that the necessary outreach activities are undertaken. In the McKinney SRO program, only the PHA would be involved.

Second, the new program will require that the full 10 years of housing assistance be matched equally with funds for supportive services. Selection criteria will assess the extent and appropriateness of the services. While services are important to the McKinney SRO program, PHAs have experienced difficulty in obtaining them.

Third, as one of three components, communities can use the Shelter Plus Care SRO program in a more coordinated manner. As homeless persons are identified through outreach activities, they can be placed in the most appropriate type of housing for their needs.

SENATOR MIKULSKI: What has been the demand for SRO units over the past 5 years?

ANSWER: The Department does not have information on the true demand for units. Based on the number of applications received for the McKinney SRO funds, the demand exceeds the supply greatly.

In the first year, 1988, HUD received 109 applications and awarded $35 million to 21 PHAs. In 1989, HUD received 106 applications and awarded 25 PHAs a total of $45 million. Last year, 71 PHAs applied and HUD awarded 31 of them $73 million.

SAFAH

SENATOR MIKULSKI: Which programs are you proposing to merge into SAFAH?

ANSWER: Six programs will be discontinued to provide more funds for SAFAH.

--Adult Education for the Homeless (ED) (fiscal year 1991 funding), $9.8 million;

--Education for Homeless Children and Youth (ED) $7.3 million;

--Job Training for the Homeless Demonstration (including the Homeless Veterans Reintegration Project) (DOL) $12.7 million;

--Community Mental Health Services Research Demonstration Projects (HHS) $5.9 million; and

--Research Demo Projects on Alcohol and Other Drug Abuse for Homeless Persons (HHS) $16.4 million

SAFAH

SENATOR MIKULSKI: Are you moving the objectives of those programs to SAFAH, or just the money?

ANSWER: Projects currently receiving funding under the McKinney programs, would have a priority for SAFAH funding in 1992 if they can demonstrate that they are operating a proven successful program. Education, training, and other services are critical to strategies to promote self-sufficiency. The Budget does not propose to transfer any funding from other programs to SAFAH; but, rather, that there be no appropriations for these discontinued programs while SAFAH funding increases to $57 million in 1992.

SENATOR MIKULSKI: Assuming the objectives of these programs will be carried out under SAFAH, by merging these programs with SAFAH, aren't you going to be limiting the activity to a very small number of communities?

ANSWER: Funds for this initiative would be available to States, local governments, tribes or private non-profit organizations. The total amount available under SAFAH will exceed the amounts available under the discontinued programs.

SENATOR MIKULSKI: Wouldn't it be more effective to put these objectives and the money into FEMA's EFS or your ESG program, which tend to reach many more communities and service providers?

ANSWER: The new initiative is intended to expand and replicate comprehensive programs which have proven successful in ending homelessness. In contrast, money provided under FEMA's EFS and HUD's ESG programs tends to be spread very thinly. Based upon 1990 final reports submitted by ESG recipients, the median grant to individual shelters was $13,000. While those programs meet immediate needs of homeless persons, they are not designed to end homelessness.

SENATOR MIKULSKI: According to the latest Interagency Council annual report, the HHS Mental Health Demonstration projects will be in their third and final year in FY 1992. Are FY 1992 funds needed to complete these projects, and if so, will they be funded?

ANSWER: While HHS will no longer administer research demonstration grants under McKinney Act Sections 612 and 613, current grantees that are testing innovative interventions for one or more of the populations of interest will be considered for funding under the new program on a competitive basis.

SENATOR MIKULSKI: Don't you need an amendment to the McKinney Act to merge these programs into SAFAH? Have you discussed it with the authorizing committees?

ANSWER: These programs are not actually being merged into SAFAH. Rather, the appropriations for the other programs would be reduced to zero, while the appropriation for SAFAH would be increased.

SUPPORTIVE HOUSING DEMONSTRATION PROGRAM

SENATOR MIKULSKI: Your budget proposal indicates there were significant delays in awarding these funds in FYs 1990 and 1991. When actually did you make your FY 1990 and 1991 awards under the Supportive Housing Demonstration program? Why?

ANSWER: The program cycles for both Transitional Housing and Permanent Housing for the Handicapped Homeless have traditionally resulted in grant award announcements during the late summer months. In fiscal year 1990, Transitional Housing awards were announced on August 21 and Permanent Housing awards on September 19 with obligations occuring essentially during the first half of fiscal year 1991. This year we anticipate Permanent Housing awards in July and Transitional Housing in August but with obligations occuring mostly again during the next fiscal year. During these past two cycles the Department has made significant changes in program regulations and application forms to make the program more accessible, held a number of application workshops and set application submission deadlines in order to allow applicants sufficient preparation time.

FEMA'S EMERGENCY FOOD AND SHELTER PROGRAM

SENATOR MIKULSKI: If the administration's basis for cutting FEMA's program is really to provide more money for HUD's "permanent" homeless programs, how do you reconcile cutting FEMA's program by $50 million, while at the same time requesting $150 million less than authorized for HUD programs?

ANSWER: The Budget Enforcement Act of 1990 sets a limit on total discretionary funding. This has forced trading off lower priority programs for higher priority initiatives. The President's budget places priority on those programs that have the highest potential for ending homelessness.

SENATOR MIKULSKI: Do you disagree with the latest Conference of Mayors report indicating that food and emergency shelter remains one of the most pressing needs?

ANSWER: While food and shelter remain as a pressing need, we cannot rely on the Conference of Mayors report because of the approach taken in gathering information for the report which is based on the impressions of public officials in 30 cities. The Administration's emphasis is on reducing the number of emergency situations by funding programs that move homeless people to independent living and self-sufficiency and using mainstream programs to prevent others from becoming homeless.

SENATOR MIKULSKI: The Interagency Council recently reported that there are many more near homeless than actual homeless. Doesn't this make FEMA's program, which is much better at reaching the total population and small communities, and which targets the needy as well as the homeless, more, not less, important?

ANSWER: McKinney Act resources are too limited to address the needs of the near homeless in any significant way. The hundreds of billions in mainstream social service, health, education and job training programs must be relied upon to prevent homelessness. McKinney Act funds should help the most needy--those who are homeless.

EMERGECNY SHELTER GRANTS

SENATOR MIKULSKI: How many communities typically do not accept their ESG allocation?

ANSWER: Very few Emergency Shelter Grants are declined. In fiscal year 1990, only three communities (American Samoa, Northern Mariana Islands and Toa Baja, Puerto Rico) did not apply for ESG funds.

SEPARATION OF CHURCH AND STATE

SENATOR MIKULSKI: Is HUD still having problems providing funds to religious organizations?

ANSWER: In October, 1989, the Department published revised regulations which included a section on the provision of assistance to primarily religious organizations. We have not had problems providing funds to these organizations.

SENATOR MIKULSKI: What restrictions do you presently place on recipients, such as allowing religious symbols, requiring establishment of a nonsectarian affiliate?

ANSWER: HUD may provide assistance to primarily religious organizations if the organization agrees to provide housing and supportive services in a manner that is free from religious influences and in accordance with certain principles: no discrimination in employment on the basis of religion; no discrimination of persons applying for housing or supportive services on the basis of religion; no religious instruction or counseling, conduct no religious worship or services, engage in proselytizing and exert no other religious influence in the provision of housing and supportive services. In addition, if a primarily religious organization requests HUD assistance to acquire or rehabilitate a structure that it owns, the assistance may only be provided to a wholly secular organization.

SENATOR MIKULSKI: Do you know whether many religious organizations are still not seeking HUD funds because of HUD's restrictions on religious activities?

ANSWER: We are not aware of religious organizations not applying for HUD funds on the grounds that our regulations are too restrictive.

CONSORTIUM FOR CITIZENS WITH DISABILITIES

SENATOR MIKULSKI: The Consortium for Citizens with Disabilities contends that Shelter Plus Care's rental subsidies "has limited usefulness in locations where there is an acute shortage of affordable housing." Granted, while the purpose of the program is to help make housing more affordable, has HUD done any studies to determine whether there is in fact, much housing that is likely to be placed by owners into this program?

ANSWER: Experience with the Section 8 certificate program demonstrates that private owners are willing to house certificate holders, including those who are chronically mentally ill. HUD is currently participating in a demonstration with the Robert Wood Johnson Foundation to provide certificates and services to the chronically mentally ill, many of whom are homeless. The added support network provided through the services given to these people is sufficient to convince landlords to accept these people as tenants. We expect the same kind of experience under the Shelter Plus Care program because of its heavy emphasis on the need for long-term ongoing supportive services.

In addition, an evaluation of the housing voucher program (which provides housing assistance similar to that provided through the rental assistance component of the Shelter Plus Care programs) founds that the program generally works well in all housing markets--including tight markets.

SEPARATION OF CHURCH AND STATE

SENATOR MIKULSKI: Is HUD still having problems providing funds to religious organizations?

ANSWER: Not under Section 202. The Department requires the nonprofit sponsor to establish a separate borrower/owner corporation, which is a single asset corporation, that will own the project. The single asset corporation may not have religious purposes in its articles or by-laws.

SENATOR MIKULSKI: What restrictions do you presently place on recipients, such as allowing religious symbols, requiring establishment of a nonsectarian affiliate?

ANSWER: Section 202 projects may provide common space which may be used for religious services, provided there are no permanently installed religious items, and the space is made available to all requesting religious bodies.

SENATOR MIKULSKI: Do you know whether many religious organizations are still not seeking HUD funds because of HUD's restrictions on religious activities?

ANSWER: Religious bodies do not seem inhibited in asking for Section 202 funds. A substantial portion of the sponsors funded under the program in the last 15 years are religious bodies or affiliates of such bodies. Most of the large national sponsors are religious affiliates.

CONGREGATE SERVICES

SENATOR MIKULSKI: What analysis or data do you have showing that a tenant-based service will work better than a project-based service?

ANSWER: HOPE for Elderly Independence (the Elderly Independence demonstration) is predicated on developing an effective mechanism for combining housing and supportive services for low and very low income, frail, elderly persons. This is a new way of providing such benefits to the frail elderly, and one which will be studied and tested.

SENATOR MIKULSKI: How could providing these services not keep people from being institutionalized?

ANSWER: The assumption behind the provision of such services is that non-medical services are those necessary to keep a person in his own home (or apartment). That is, if they are provided, unnecessary institutionalization will be delayed or prevented altogether. However, the Department also recognizes that as the level of frailty increases for any one individual, the services provided through CHSP or the Elderly Independence demonstration may become insufficient for that individual, particularly if long hours of personal support, and/or regular medical services become needed. In such cases, the individual is usually no longer able to remain at home, with the only recourse being either moving to the home of a relative or institutionalization.

SENATOR MIKULSKI: Wouldn't tenant based services almost have to be more expensive and/or less available?

ANSWER: Each Public Housing Agency (PHA) involved in the Elderly Independence demonstration will have to garner third party support as a part of their initial application to HUD. As a "guaranteed" supplier of both individuals and funds (40 percent of the cost of the services), perhaps limited to a specific geographic area, the PHA in fact provides an incentive for third party providers to work with the PHA in a cost-effective manner.

The degree to which the Elderly Independence Demonstration, however, is an efficient or effective mechanism for delivering services will be studied when PD&R conducts its evaluation of the program which is scheduled to begin in fiscal year 1992. The evaluation of the Elderly Independence Demonstration will run 3 years and will provide a number of interim reports.

SENATOR MIKULSKI: Do you plan to implement Section 802 of the Affordable Housing Act at all?

ANSWER: The Department is currently drafting an Interim Rule to implement the revised program which is planned to be published around the end of fiscal year 1991. This rule will establish procedures for the supportive services provisions of Section 802 and ask a number of questions regarding the retrofit provisions, so that the Department may get some external views on those issues.

However, the Department is proposing to defer establishing new grants under the revised program while HUD implements the HOPE for Elderly Independence Demonstration and Section 202 Service Coordinators. This will allow the study of the two approaches to providing a combination of rental assistance and service provision before embarking on another new program.

MORALE AT HUD

SENATOR MIKULSKI: A survey last year ranked HUD as the 7th least respected Federal agency by former Government executives. Education was the only major department to be ranked worse. Isn't the rank-and-file morale in HUD pretty low?

ANSWER: During the height of the HUD scandals at the beginning of this Administration and all of the associated publicity, morale at HUD was low. I believe we have turned that around. My management team has made special efforts to convey to HUD employees the significance of their contributions to the Department's goals and I have personally met with groups of employees across the country to talk about our priorities. We have undertaken an a aggressive program to "clear the decks," which involves all employees, career and non-career. We have recognized deserving employees for their contributions to the Department's mission and upholding the integrity of the public service.

SENATOR MIKULSKI: CRS recently reported that HUD also has the second highest number of political appointees of any federal department. Doesn't your unusually high level of political positions reduce career opportunities and knowledgeable leadership and further hurt moral? If so, what are you doing about that?

ANSWER: Political appointees fill less than 1 percent of the total positions in the Department. At the senior executive/policy level, 21 percent of the positions are filled by political appointees. On a case-by-case basis, the Department has demonstrated and fully justified a need for each political appointee on the rolls. Additionally, these appointments are not made without review and approval by both the White House and the Office of Personnel Management. The program agenda of the Department, with its active legislative program and evolving policy and programmatic changes, and the relationships with constituent and public interest groups, State and local officials, individual consumers, and the Congress, dictates a need for a high level of political appointees. These appointees share the views of the Secretary and the Administration on program direction and agenda and strongly advocate, support, and speak on these matters on the Secretary's behalf. Political appointments are a viable and integral part of the personnel process and were legislated for the very purpose for which they are being used at HUD. On the other hand, career opportunities and advancement for HUD career employees have improved. The HUD Intern Program, the Housing Technician Program, and the Upward Mobility Program have been revitalized under this Administration, and a sizable budget amount is earmarked for training and developing these potential Departmental leaders. In addition, 62 percent of the Senior Executive Service career appointments made under this Administration have been from within the HUD workforce. There is no apparent drain on continuity of or knowledgeable leadership. Morale at HUD has improved, employees are recognized for their contributions and they play a significant role in the development and administration of the Department's programs.

SENATOR MIKULSKI: Have you administered any employee questionnaires to measure morale, and the causes of any low morale? If so, what are the causes? What are you doing about it?

ANSWER: The Department has not administered any questionnaires to measure morale.

USE OF NIBS

SENATOR MIKULSKI: As you may be aware, the Congress created the National Institute of Building Sciences as a non-profit, non-governmental entity in the mid-1970s to perform a number of functions, including development of standards for the maintenance of life, safety, health, and public welfare for adoption by building regulating jurisdictions and agencies. The authorizing legislation stipulated that federal agencies may contract with the Institute where deemed appropriate. The Subcommittee is aware that you have had contracts with the Institute for their services; however, is the use of NIBS inhibited by a requirement that their type of services be obtained competitively, or by other factors?

ANSWER: The Department has not experienced any difficulty in contracting with NIBS. It has procured NIBS services non competitively when the agency determined that NIBS was uniquely qualified to undertake specific projects. The NIBS staff is very small and its technical capabilities are very limited. It accomplishes most of its work through organizing committees whose members serve voluntarily to discuss and report on various technical issues.

SENATOR MIKULSKI: Are you aware of, and used or considered using the authority provided in the OMB 9/10/90 memorandum to contract sole source for NIBS' services?

ANSWER: The Department is aware of the OMB 9/10/90 memorandum, and had already awared non competitive contracts with NIBS prior to the release of that document.

SENATOR MIKULSKI: The Act creating NIBS also authorized federal agencies to seek funds to make grants to NIBS for general operating support. Has HUD ever done this? What would be its views on doing so?

ANSWER: HUD has not requested funding for NIBS general operating support. NIBS should be self supporting by charging fees for its technical services as envisioned in PL 93-383, Section 809. This, has never been the case.

SENATOR MIKULSKI: Are there specific projects for which HUD would prefer to use NIBS' services, and would if funds were provided to HUD for such purposes?

ANSWER: HUD has been contracting with NIBS for over a decade on a variety of specific projects including rehabilitation guidelines, building codes and regulations, and lead-based paint guidelines.

SENATOR MIKULSKI: Are there other organizations which can satisfactorily provide the services the Institute offers?

ANSWER: Other organizations can provide the services NIBS offers.

INTERAGENCY COUNCIL ON THE HOMELESS

SENATOR MIKULSKI: What duplication among Federal programs have you identified so far?

ANSWER: The Council has identified several areas of possible duplication. For example, the VA, FmHA, HUD and the RTC administer programs that either make foreclosed homes available for $1/year leases or convey the properties outright. The Council is currently in the process of working with these agencies to develop mechanisms through which eligibility requirements and outreach/public relations activities can be coordinated, reducing the need for providers to learn about and establish eligibility separately for four similar programs.

Another possible area for further review is the broad category of emergency assistance programs for the homeless which are currently funded by separate McKinney programs with similar objectives in HHS, HUD and FEMA. As a result of our preliminary review of this category of funding, the President's fiscal year 1992 budget proposes to discontinue funding of the Emergency Community Services for the Homeless Grant Program in HHS in order to fund other programs that are more likely to have an effect on ending homelessness. The Social Services Block Grant and AFDC/Emergency Assistance Programs provide broad authority to States to fund activities that would otherwise be covered under this program.

SENATOR MIKULSKI: What means could you use to eliminate duplication?

ANSWER: Federal programs or program activities which unnecessarily duplicate other Federal, State, local government or private efforts that cannot be addressed administratively can and will be addressed in future budgetary and legislative proposals.

In addition to our activities at the Federal level, the Council is also encouraging the identification and reduction of duplication at the State and local levels. Through the activities of the Council's Field staff, the regional workshops and the monitoring and evaluation visits, duplications in the Field also have become a focus of State and local policy review. For example, New Jersey agencies are now working together to consolidate several homelessness planning documents into a joint document.

SENATOR MIKULSKI: We know you are also recommending improvements. Do they get implemented?

ANSWER: Many of our recommendations for Federal program improvements are reflected in the Administration's 1992 Budget proposals which are currently under review by Congress. We have had excellent cooperation from the member agencies in reviewing and responding to other program-specific recommendations which can be implemented administratively. HUD, for example, has revised the regulation and application procedures for the McKinney Act programs which it administers. In addition, we identified a need for special services to reach one of the most difficult populations, those residing in transportation facilities. This has resulted in a new demonstration program involving DOT, HHS, HUD, DOL and USDA.

SENATOR MIKULSKI: What leverage can you put on agencies?

ANSWER: We are fortunate to have excellent working relationships with all of our member agencies. This cooperation has been evident since the beginning of this Administration. In addition, both the Chairman and the Vice Chairman of the Council are active in providing leadership to the member agencies and strongly encourage them to be proactive in implementing policies and programs that will help end homelessness. If there are differing viewpoints on a particular issue, we work to develop the most appropriate policy. The Council also reports any complaints we receive or problems we identify to the relevant agency or agencies and request a response. The member agencies have been responsive in determining ways to achieve program improvements. We view the Council as a vehicle both for interagency coordination and interagency cooperation in addressing homelessness.

SENATOR MIKULSKI: How does your evaluation of the homeless programs differ from PD&R's; or the HUD IG; or GAO's?

ANSWER: HUD's Office of Policy Development and Research (PD&R) conducts specific program evaluations; the HUD Inspector General reviews program compliance; and the General Accounting Office investigates programs and follows up on specific requests by Congress. On the other hand, we obtain information on recommendations for improvements and successful models of Federal, State and local programs through direct group dialogue with representatives of State and local government agencies, homeless coalitions, non-profit organizations and public interest groups. We also obtain information on current and future trends (perceptions in the Field) which are provided to the member agencies for their consideration in policy development.

SENATOR MIKULSKI: How does the Administration know how much to target for each segment of the homeless population?

ANSWER: The Administration is guided by statutory direction, as well as by available data on the needs and characteristics of the homeless population obtained from studies, expert advice, and information from service providers. For example, Peter Rossi of Amherst University and Martha Burt of the Urban Institute have both conducted studies which provided reliable information on the number and demographic characteristics of the homeless population.

SENATOR MIKULSKI: The Council's 1990 annual report indicated (page 44) that in many areas, we have finally achieved the needed shelter capacity. Has the Administration developed any correlation of its budget proposal to data on identified areas of need, such as food, shelter, or supportive services; or particular population segments such as children, veterans, mentally ill, etc.?

ANSWER: Page 44 of our Annual Report refers to emergency shelters only. More recent assessments now indicate that we need to focus on developing transitional and permanent housing with support services. The Shelter Plus Care programs are examples of the Administration's policy direction. These new programs, which are proposed for full implementation in 1992, provide for HUD rental housing assistance in concert with supportive services from other Federal, State and local sources, to homeless persons with disabilities. Available data indicate that a majority of homeless individuals have such disabilities. In addition to the HUD shelter survey study, other member agencies have developed data on identified target populations resulting in additional legislative proposals to Congress. For example, HHS reviewed its welfare hotel policy and recommended changes, while USDA has proposed a new food program based on some of their findings.

SENATOR MIKULSKI: What are we doing to get better data?

ANSWER: The Council is encouraging member agencies to conduct program evaluations which address the extent to which grantees maintain data on persons served by the various programs. The Comprehensive Housing Affordability Strategy (CHAS) will provide an impetus for State and local governments to estimate the housing assistance needs of families and individuals.

To improve data collection on homeless persons, the Council, HUD, and the Census Bureau recently sponsored a conference to exchange information about approaches to survey design, methods to estimate the population "at risk" of becoming homeless, and funding sources for studies of this population. The conference proceedings have recently been published, and additional technical assistance material is being developed. The Census Bureau is exploring ways to obtain additional information on the characteristics of homeless persons.

Finally, to expand our knowledge base, HUD and Census have made modifications to the American Housing Survey which will include questions on housed individuals and families who were previously homeless.

SENATOR MIKULSKI: There seems to be a lot of opposition to the Census homeless count. What is your opinion?

ANSWER: The special enumeration by the Census Bureau in March 1990 was an attempt to obtain better data on persons in emergency shelters for the homeless and visible in street locations. This represented a major effort to count persons who might not have been counted using standard procedures. Although the special Census count was not intended to produce a count of the entire homeless population in the country, it did improve coverage of the shelter population. The Council supports this effort.

SENATOR MIKULSKI: Is the Council familiar with the basis the administration has for seeking no money for homeless children under the McKinney Act?

ANSWER: The Council has made homeless children and their families one of its priorities and, in fact, the Administration has requested monies for this population. One of the Administration's fiscal year 1992 proposals is to increase funding for HUD's Supplemental Assistance for Facilities to Assist the Homeless Program (SAFAH) and to not fund certain small homeless programs administered by the Departments of Education, Labor and Health and Human Services. These funds will address the needs of the entire family, including children. In addition, half of the funds for transitional housing have been awarded to projects serving homeless families with children. Other programs in the Department of Education such as the Chapter 1 Grants to

Local Education Agencies Program and Even Start serve homeless children and youth. HHS also has a number of programs that serve homeless children. HUD and HHS have signed a Memorandum of Understanding in a cooperative interagency effort which will focus its efforts on homeless families with children.

SENATOR MIKULSKI: Couldn't it be argued that hunger and homelessness are a measure of the extent to which our HUD, HHS, and Agriculture programs are not working? For example, are these programs underfunded; are there not enough places to use a voucher or certificate; do they have an inadequate outreach effort; or what?

ANSWER: We believe that many of the Federal programs are working. At the same time, many may need to be improved to address the current needs of the homeless population. Demand for vouchers and certificates varies in different localities. Outreach has improved and needs further improvement. Mainstream programs need to be more responsive to the homeless population. All of these areas are being addressed by the member agencies. In order to provide the amount of resources necessary to help the majority of this group to become self-sufficient, the Federal government must work in partnership with public and private organizations.

SENATOR MIKULSKI: Why doesn't HUD have uniformly mandated lab standards for those labs that certify the results of either pre-abatement or post-abatement standards?

ANSWER: The HUD Interim Guidelines include standards and procedures for testing in connection with the lead-based paint detection and abatement. To ensure that independent testing laboratories are in compliance with the Guidelines' standards and procedures when they test, the Department is planning to use an existing voluntary program administered by the National Institute of Standards and Technology (NIST) of the Department of Commerce: the National Voluntary Laboratory Accreditation Program (NVLAP).

Using its own technical staff and/or third party inspectors and an evaluation protocol tailored to the particular laboratory, the NVLAP examines the competency of a laboratory to do what it says it can do. Such evaluations include proficiency testing.

The Department proposes to underwrite the initial costs of establishing the NVLAP evaluation program. Once in place, user fees will be charged to cover costs.

INTERIM CONTAINMENT

SENATOR MIKULSKI: What steps are being taken by HUD to produce an interim containment strategy?

ANSWER: The Department is currently developing an in-place interim containment protocol for public housing.

The Department's in-place management protocol for public housing will be oriented toward monitoring and maintaining lead painted surfaces, regular cleanup of lead dust, and controlling further accumulation of lead dust. Based on current knowledge, measures are oriented toward reducing lead in house dust by vacuuming with a high efficiency particle accumulator (HEPA), washing surfaces with special cleaning solutions, and (with proper precautions) repairing or otherwise intervening in the most obvious sources and pathways of lead dust, whether that be lead-based paint that is in poor condition, exterior dust, or soil.

I believe that we are close to having a final draft plan ready for outside review and comment. It will be ready for implementation later this year.

SENATOR MIKULSKI: To what extent is HUD working with the public health and public housing representatives that assisted the Department in the development of the interim guidelines?

ANSWER: Once an acceptable draft of the interim containment protocol is prepared by HUD, it will be disseminated for review and comment to all affected constituencies and groups prior to being put in final form.

SENATOR MIKULSKI: Shouldn't comprehensive, scientific risk assessments be undertaken to determine what measures to prescribe to reduce the risk of injury?

ANSWER: We agree that risk assessments have value. The question becomes, what is the purpose of the risk assessment. The Interim Guidelines contain a risk assessment which will serve a PHA in identifying those developments which should be tested and abated first. This assessment was developed by Dr. Herbert Needleman and provides the means to prioritize testing and abatement, thereby reducing the risk of injury.

RISK ASSESSMENTS

SENATOR MIKULSKI: Shouldn't protocols for comprehensive, scientific risk assessments be promulgated to ensure that such assessments are conducted in a consistent and uniform manner and that PHAs receive quality results and recommendations?

ANSWER: We agree that a protocol is appropriate in assuring uniformity of the conduct of a risk assessment. To that end, we provide a protocol in the Interim Guidelines. We do not believe that a risk assessment to determine the cost of insurance premiums is a requisite action for a PHA to assume. The insurance company currently providing PHA lead-based paint insurance for abatement does not require a risk assessment. In view of some comments about our current assessment, however, we intend to review that assessment with Dr. Needleman and make adjustments, should it be deemed necessary.

SENATOR MIKULSKI: Why aren't lead-based paint risk assessments an eligible CIAP cost as prescribed in the 1991 Appropriations Act?

ANSWER: Lead-based paint risk assessments are an eligible CIAP cost in Fiscal Year 1991. These costs are recognized as eligible costs when related to the procurement of insurance for modernization. We have been advised by the Office of General Counsel that funding beyond these instances would require a regulatory change. Risk assessments continue to be an eligible operating subsidy expense.

SENATOR MIKULSKI: How do we ensure that risk assessments take into consideration the maintenance capacity of a PHA?

ANSWER: The HUD lead toxicity risk assessment guidance, as developed by experts in the Field and provided in the Interim Guidelines, specifically takes into consideration the interior and exterior conditions of developments (such as the condition of paint, wood surfaces, plaster walls, etc.), hence, enabling a PHA to self-assess its maintenance capacity in addressing the results of the completed risk assessment.

DEMONSTRATION

SENATOR MIKULSKI: What information have the HUD-held and public housing demonstrations yielded?

ANSWER: The FHA demonstration has yielded valuable information with regard to both the cost and effectiveness of alternative abatement strategies. These findings are contained in a final FHA demonstration report which will be published this summer. A summary of key findings is listed below:

COST

encapsulation:
  average cost $2,900
  median cost $1,800 - $2,000
  priority hazards average cost $4,200
removal:
  average cost $7,700
  median cost $2,000 - $2,300
  priority hazard average cost $10,400

METHODS

encapsulation - lowest dust, least hazardous waste but durability needs to be established;
chemical removal - permanent but expensive and a lot of hazardous waste;
hand-scraping with heat gun - slow but effective
replacement - best method for doors and windows
abrasive removal - doesn't work - clogs the machine.

WORKER PROTECTION

Procedures outlined in HUD Guidelines protect the worker
HUD collected extensive data being analyzed by OSHA & NIOSH

CONTRACTORS

Industry very small; difficult to find contractors
Quality of the work varied greatly, depending upon contractors

SENATOR MIKULSKI: How does HUD intend to publicize this information to PHAs, HUD staff and others?

ANSWER: As noted above, the FHA demonstration will be disseminated this summer to a variety of interested groups and will also be available through HUD USER, a publications service accessible to the public via a toll-free line.

SENATOR MIKULSKI: Given that all current testing and abatement activity is, in some sense, a "demonstration", to what extent is HUD gathering and disseminating information on such activity?

ANSWER: We are looking into setting up a clearinghouse to collect information so that PHAs and others can learn from each other.

In addition, we are using the current training sessions as an avenue to gain some sense of where the PHAs are in testing and abatement. A survey form was developed which will be aggregated at the conclusion of the training sessions. Finally, we are revising our data system to gather data on the number of units tested and abated.

TRAINING AND ORGANIZATION OF HUD STAFF

SENATOR MIKULSKI: What progress is being made toward giving HUD's operational divisions (Public and Indian Housing, FHA) prime responsibility for lead abatement efforts?

ANSWER: The Office of Public and Indian Housing (Headquarters) has assigned staff to this function and has taken the lead in assuring that training is conducted, staff are identified in the field and are sufficiently knowledgeable about lead-based paint issues to provide technical assistance. Regional contact persons were identified in 1989. We are now expanding these contacts to the Field Office staff. These contact persons will have the lead responsibility for ensuring that the Department's public housing regulatory and statutory lead based paint requirements are met.

SENATOR MIKULSKI: What training has HUD provided (or funded) for Department personnel as well as PHA administrators and maintenance staff? What are the future plans for training?

ANSWER: Immediately after the issuance of the Interim Guidelines in April 1990, the Department conducted training for its field staff. Additionally, staff has participated in training conducted by interest groups and private contractors. We are also aware that PHAs have also availed themselves of private training which may have been paid for through HUD funds (i.e., CIAP, operating subsidy). We are currently conducting 15 sessions of a two day national training course, through an interagency agreement with EPA, which was designed exclusively for PHAs. In response to future needs, we have been working closely with EPA and OSHA in the development of courses for inspectors, abatement project supervisors, workers, and project designers. EPA has advised us that the inspectors and abatement supervisors training has been completed and will be offered in the fall.

SENATOR MIKULSKI: How will HUD ensure that field personnel and PHAs access the knowledge and experience of other experts and interested parties?

ANSWER: HUD is co-chair of an interagency task force comprised of experts in the field of lead-based paint. Public and Indian Housing staff are an integral part of this task force which meets on a monthly basis and provides an ongoing exchange of information. Sharing of this information takes place through conference calls, memoranda, and cc:mail to expedite information transmittal, in addition to letters sent directly to PHAs, the issuance of Notices, and ongoing telephone conversations.

LIABILITY

SENATOR MIKULSKI: What type of insurance coverage is available under the American Empire Master Policy? Would the Policy cover, for example, accidents that occur when a resident re-occupies a building that has been negligently abated?

ANSWER: Reproduced below is the insuring agreement for this policy. While additional portions of the insuring agreement elaborate further on coverage, this section of the insuring agreement limits coverage to abatement/removal or testing. It was not designed to cover the existence hazard. The PHA could not purchase this policy prior to beginning of the work and have coverage. We believe that an "occurrence" taking place after re-occupancy would be very questionable as far as coverage is concerned, but if injury was alleged, it might take a court decision to resolve.

Pollution Coverage: It is understood and agreed that the insurance provided by this policy shall apply only to an occurrence arising out of the actual, alleged or threatened discharge, dispersal, release, escape, ingestion or presence of lead-based paint during its abatement/removal or the testing for the presence of lead-based paint.

SENATOR MIKULSKI: Will PHAs be permitted to obtain broader coverage than that offered by American Empire? What is the basis of HUD's policy?

ANSWER: PHA's should certainly be permitted to obtain broader coverage than that offered by American Empire, if it is available. Competitive bids were obtained last October and at that time the American Empire bid was chosen as the company offering the best coverage and price. As long as the minimum requirements set forth in PIH 91-3 are followed, we should not object if the terms are the same but the premium lower.

SENATOR MIKULSKI: To what extent can private insurance exert an additional "quality control" check on the abatement work performed by PHAs? Will the American Empire Master Policy play this role?

ANSWER: Section D of the Policy Conditions reads as follows:

> "D. INSPECTIONS AND SURVEYS
>
> We have the right but are not obligated to:
> 1. Make inspections and surveys at any time;
> 2. Give you reports on the conditions we find; and,
> 3. Recommend changes.
>
> Any inspections, surveys, reports or recommendations relate only to insurability and the premiums to be charged. We do not make safety inspections. We do not undertake to perform the duty of any person or organization to provide for health or safety of workers or the public. And we do not warrant that conditions:
>
> 1. Are safe or healthful; or
> 2. Comply with laws, regulations, codes or standards."
>
> This condition applies not only to us, but also to any rating, advisory, rate service or similar organization which makes insurance inspections, surveys, reports, or recommendations.

This form is not a manuscript form designed by American Empire. It is copyrighted by the Insurance Services Office and used by most insurance companies. It does give them the right to make inspections and recommendations, but insurance companies are most reluctant to give any impression that they are warranting that the workplace is safe or that there is compliance with laws, regulations, or standards.

Endorsement number 6 on the policy does give them the authority to cancel the policy by giving minimum of 30 days advance written notice if there is non-compliance with the document entitled "Lead-Based Paint Hazard Identification and Abatement in Public and Indian Housing" dated April 1, 1990. We are of the opinion that they would probably want to spot-check some projects to determine whether this was a problem.

SENATOR MIKULSKI: To what extent has HUD examined liability issues for other portions of the inventory (Section 8, other subsidized housing)?

ANSWER: The Department has not undertaken such an analysis to date.

SENATOR MIKULSKI: To what extent will the lead-based paint testing and abatement requirements encourage owners of Section 8 and other subsidized housing to decline to rent to families with young children?

ANSWER: While there is no way of predicting the precise impact of these requirements upon owners of structures which rent to families with Section 8 certificates, it is certainly possible that some owners may decide that the cost of meeting these requirements outweighs their desire to stay in the Section 8 program. This will probably vary from city to city and will depend upon the rental market. Where the vacancy rate is low, landlords are more likely to be resistant to these requirements.

SENATOR MIKULSKI: What actions have been taken to discourage violation of the Fair Housing Act in connection with this program?

ANSWER: No specific action has been taken. However, the Fair Housing Amendments Act of 1988 prohibits discrimination against families with children except in housing designated for the elderly. It is therefore a violation of Federal law to deny private sector or federally subsidized housing to such families. The Office of Fair Housing and Equal Opportunity has initiated a national education and outreach campaign to inform the American public of their rights and responsibilities under this new law.

PROCUREMENT PROCEDURES

SENATOR MIKULSKI: We understand that some Area Offices are requiring PHAs to give great weight to "price" in the procurement of architects and consultants in conjunction with abatement projects. Such requirements are in apparent disregard of HUD's procurement procedures and may result in PHAs hiring professionals that may not have the technical experience in dealing with lead based paint. How does HUD intend to deal with this situation?

ANSWER: We are not aware of any instances in which HUD staff have required PHAs to violate the procurement requirements in 24 CFR 85.36(d)(3)(iv) for competitive proposals. This provision states that: "Grantees and subgrantees may use competitive proposal procedures for qualifications-based procurement of architectural/engineering (A/E) services whereby competitors' qualifications are evaluated and the most qualified competitor is selected, subject to negotiation of fair and reasonable compensation. The method, where price is not used as a selection factor, can only be used in procurement of A/E professional services. It cannot be used to purchase other types of services though A/E firms are a potential source to perform the proposed effort."

Therefore, when services other than A/E professional services are being procured, the PHA must use price as an initial selection factor. When A/E professional services are being procured, the PHA may use price, if permitted by State law, as an initial selection factor. In such case, the PHA evaluates competitors based on technical factors, including price, and then selects the responsible firm whose proposal is most advantageous, with price and other factors considered, subject to negotiation of price.

COMPREHENSIVE GRANT PROGRAM

SENATOR MIKULSKI: Will PHAs be able to use Comp Grant funds to pay for comprehensive scientific risk assessments in all their pre-1978 family developments?

SENATOR MIKULSKI: Will PHAs be able to use these funds for interim containment measures such as ongoing inspections, cleaning units with HEPA vacuums and repainting deteriorated surfaces?

SENATOR MIKULSKI: Will PHAs that are designated as "troubled under section 14" encounter any problem in obtaining funds to test and abate lead based paint?

ANSWER: The Comp Grant program has yet to be implemented and we are in the process of receiving public comments on the proposed rule which will be considered in developing the final rule subsequent procedures. As such, it would not be appropriate to respond to these questions without at least acknowledging the period of public comment and noting that procedures have yet to be finalized. To the extent that interim-containment activities are capital expenses, they will certainly be eligible under Comp Grant. On the other hand, to the extent that these activities are not capital expenses, up to ten percent of Comp Grant funds may be used for management improvements by the PHA. Comp Grant is not designed to supplement a PHA's maintenance operations, which is provided for through operating subsidy.

All funds which PHAs receive under Section 14 must be used to meet needs on a priority basis to meet statutory and regulatory requirements, such as lead-based paint testing/abatement and handicap accessibility requirements.

INTERAGENCY COOPERATION

(a.) SENATOR MIKULSKI: To what extent is HUD consulting regularly with PHAs, public health organizations (e.g. CDC, NIOSH), EPA and OSHA in developing training, laboratory testing and interim containment protocols?

ANSWER: For the past 2 years, HUD has enjoyed excellent coordination and support from other Federal agencies. Our relationship with EPA is especially strong as the result of a memorandum of understanding on lead-based paint executed between the two agencies in April 1989.

EPA has been very helpful in a number of ways including assistance in research design, laboratory support, the development and implementation of abatement training programs, and long term efficacy of abatement studies.

Through the HUD-EPA research task force formed as a result of the MOU, we have engaged in continuing consultation with a number of other agencies including the Occupational Safety and Health Administration, the National Institute of Environmental Health

Sciences, the National Institute of Standards and Technology, the Agency for Toxic Substances and Disease Registry, and Consumer Product Safety Commission. We have been very pleased with the level of cooperation.

The Office of Public and Indian Housing has been working closely with EPA and OSHA in developing training regarding lead-based paint. As a matter of fact, the Department entered into an interagency agreement to conduct the currently ongoing training (15 sessions of a two-day training course) designed exclusively for PHAs. The agreement reflects the ongoing partnership that we have established to support each other's role in dealing with lead based paint. Finally, we have had discussions, outside of the official Task Force effort, with EPA and OSHA concerning the development of a monitoring tool to be used by HUD staff. That instrument has been drafted.

SENATOR MIKULSKI: What is the best way to enhance inter-agency cooperation and communication?

ANSWER: We believe that the HUD-EPA Task Force is performing that role quite well.

SENATOR MIKULSKI: Should a lead agency be designated?

ANSWER: We believe that the HUD-EPA Task Force, soon to be supplemented by a policy task force composed of Assistant Secretary level representatives of the key lead-based paint related agencies (HUD, EPA, Labor, CPSC, HHS) is an adequate mechanism for providing leadership on this issue.

INTERIM REGULATIONS

SENATOR MIKULSKI: Much confusion is likely to result from HUD's decision to make voluntary the Interim Guidelines for lead paint testing and abatement. Why shouldn't the guidelines be mandatory?

ANSWER: The interim guidelines were developed in response to the 1989 HUD-Independent Agencies Appropriations Act and, as directed by the 1990 HUD-Independent Agencies Appropriations Act, were issued on April 1, 1990. From the very beginning, we realized that in the constantly evolving area of LBP, the Guidelines would be subject to change as new information became available. Given the lack of guidance on addressing LBP issues, the Department spearheaded the effort to develop what is now, the first national compilation of technical protocols, practices and procedures on testing, abatement, worker protection, clean-up and disposal of LBP. The selected approach of having the Guidelines issued as guidance was taken after careful consideration of the fact that the Department is conducting a demonstration whose sole purpose is to provide information on the testing and abatement of lead. With that fact in mind, it did not seem appropriate to require certain procedures which may need to be revised very quickly.

The Guidelines were developed as guidance in an area in which research is ongoing. The Guidelines are not mandatory, except for cases in which statutory or regulatory requirements (set forth in 24 CFR Parts 35, 905, 941, 965, and 968) are cited, as indicated in the Guidelines themselves. The statutory and regulatory requirements include items such as: the requirement to randomly test all pre-1978 family developments by December 6, 1994; abatement of lead to a standard of .05 percent by weight; testing by the PHA/IHA within 5 days of notification of a child with an elevated blood level (EBL); final inspections and certification of abatement to be conducted by a qualified inspector, industrial hygienist or local health official based on clearance levels set by the Department; notification to residents; and, resident relocation. PHAs/IHAs which deviate from the statutory and regulatory requirements which the Department has promulgated must in fact seek a waiver of these. Non-regulatory provisions of the Guidelines do not require a waiver.

We have strongly encouraged the use of the Guidelines but note that they must be used in conjunction with the requirements of State or local codes and regulations which may exist. PHAs/IHAs are required to adhere to the more stringent requirements - federal or local. The Department has also undertaken a research and demonstration program which will provide additional information to serve as the basis for additional changes and revisions to the Guidelines.

SENATOR MIKULSKI: The regulations "grandfather" the results of lead paint testing using outdated techniques. Since these test results are likely to be inaccurate, the risk is high that children may be injured in these units. What justification exists for not requiring retesting in cases where the original test results were inconclusive?

ANSWER: Our main concern and focus in testing is the health of children. As such, a decision was made to test first those units that have never been tested before. Our desire is to test and subsequently abate as many units as possible with the finite amount of funds available. It is noted that procedures are in place to ensure that children are immediately removed from units which are found to have lead-based paint and/or in cases where children have been found to have elevated blood levels.

CONSOLIDATED SUPPLY PROGRAM

SENATOR MIKULSKI: The Department has proposed eliminating the Consolidated Supply Program, in part because it is not cost-effective. We cannot identify the cost of the program through fiscal year 1991 in HUD's budget submission, or the savings achieved from terminating it. What is the annual cost?

ANSWER: The CSP is part of the overall operation at both Headquarters and Field levels. For this reason, its annual costs cannot be separated other functions performed by HUD staff. Without performing a detailed work measurement study, it is impossible to provide a specific dollar amount for the program. We can say, however, that at the Headquarters level 10 staff people administer the program along with other duties. We would like to note, however, that the major reason for terminating the program concerned the abuse of the program by PHAs as evidenced by the latest of a series of negative audits. The negative findings varied. Audits found, on average, PHAs could procure goods and services by 18 percent less if they procured competitively rather than through CSP. Other audits found that PHAs procured goods through CSP by way of ineligible "add-ons" which should have been procured competitively. In addition, we believe PHAs will have far broader and more appropriate procurement capability through the GSA schedule.

SENATOR MIKULSKI: Relatedly, HUD proposes several alternatives to the CSP, such as allowing PHAs to purchase through GSA, and offering procurement technical assistance. What will be the cost to HUD of the alternatives?

ANSWER: The use of GSA supply sources by PHAs has been recommended by this office. We anticipate its "cost" to the Department to be minimal since we would only have the administrative burden of assuring that the PHAs are both aware of the program and that they use it properly. We would not anticipate increased monitoring needs since that program has not had the type of abuse present in CSP. Secondly, were we to retain the CSP and provide the necessary oversight and technical assistance we think it is proper, we estimate at a minimum 58 additional people would be needed in the Field.

SENATOR MIKULSKI: The IG report recommended terminating the program or correcting identified deficiencies. What is the cost of correcting these deficiencies?

ANSWER: As we stated previously, we are unable to separate the cost of administering this program from other programs we run. However, we do expect that the cost of the alternative we are proposing, i.e. use of GSA supply sources, will be minimal.

QUESTIONS SUBMITTED BY SENATOR LEAHY

SUBSIDIZED HOUSING

SENATOR LEAHY: First, I want to commend our chair, Senator Mikulski, on her strong leadership in the area of housing and community development in fiscal year 1991. With very limited resources in a challenging bill, Barbara, your work was extraordinary--especially in the housing preservation, Community Development Block Grant and public housing areas.

Fiscal year 1992 presents new challenges and demands in these three areas, and many more. I know that you are up to the task--although I do not envy the decisions you must make on the confusing new acronyms, HOME and HOPE.

Mr. Secretary, it is good to see you again. I want to thank you right off for the active, essential role the Department has played in two important Vermont housing preservation projects--the purchase and rehabilitation of the 336 unit Northgate Apartment complex in Burlington, VT, and of the 120 unit Highgate Apartments in Barre, VT.

I have visited both complexes, and am mightily impressed. Both projects are the work of local nonprofit development groups, with the great support from housing experts around Vermont. Both feature active resident involvement. I believe that both the Northgate and Highgate residents wrote to you more than once over the past three years.

In neither project is there sufficient funding for residents to take ownership over the short term. But ownership by residents is a long term option. And shorter term, residents could not be more pleased, because they have a role in how their homes are improved, who owns them, and how they are maintained. It is an inspiring prospect for them.

The Department has a right to be proud of its substantial role in these two housing preservation projects. I certainly am proud of the many Vermonters who pulled them off. It is my understanding that these are two of fewer than 20 such preservation projects that have merited Department approval thus far, though many more are in the works. I hope that many more will be approved nationwide.

I won't talk on for as long as I could about these two extraordinary achievements for nonprofit developers and low income residents. But I will say that if you are looking to visit two model rural-based housing preservation projects, with lots of resident involvement, you should consider visiting the Northgate and Highgate, which are just 40 miles apart in northern Vermont.

One last point on the Highgate project. The Department has thus far made some prudent financial commitments to the project. However, it has yet to release the $500,000 special purpose grant that was earmarked for fiscal year 1991 - out of this subcommittee - for the project.

Those funds are targeted to energy conservation and other improvements at Highgate, and for building an important new community room. The City of Barre submitted the necessary documentation for the award to the Department in mid-March, three and one half months ago. Construction work started last week on the project. I would appreciate your looking into, and expediting, the award of this important grant.

ANSWER: The notification of approval and grant agreement were signed by the Assistant Secretary and sent to the city of Barre, Vermont on July 15, 1991. Non-profit sponsors of the Highgate project recently contacted HUD and requested that the grant agreement be amended. At the present time, the Department is in the process of considering their request.

COMMUNITY DEVELOPMENT BLOCK GRANTS

SENATOR LEAHY: Given the need and the proven track record, why is the Administration seeking to cut CDBG? Why pull back on something that really works, especially when more applicants than ever now divide up the funds; when the number of eligible activities has expanded; and when the CDBG account has 35% fewer constant dollars than in 1981?

ANSWER: The Administration's fiscal year 1992 request for the CDBG program is consistent with recent levels of funding requested and approved for the program. Given the funding needs for other priority programs and the limited resources available, the Department believes the funding proposed for CDBG is reasonable and appropriate.

HOME PROGRAM

SENATOR LEAHY: I want to stress the importance of two additional initiatives which are before this subcommittee, and for which I know there is support in the President's budget.

One is the package of Housing Preservation measures designed to save affordable complexes--like Northgate and Highgate--from being lost from our nation's housing stock. The second is the HOME Investment partnership program, which is a product of the new National Affordable Housing Act.

I largely agree with the level of the administration's funding request for preservation. I know that Senator Mikulski is concerned with the nation's housing preservation problems, and I look forward to working with her on this issue this year.

In terms of HOME, I appreciate the administration's request for start-up funding of $1 billion. In Vermont, where state and local governments have provided extraordinary support for affordable housing, and where there is a growing and productive network of non-profit housing developers, the HOME legislation has been well-received. The program is designed well for the realities of housing need and production there.

Within the obvious budgetary limits we are facing, I plan to work with Senator Mikulski to provide funding as high as possible for HOME in fiscal year 1992. I urge the Department, Mr. Secretary, to continue to work with the congressional committees, and state and local governments, to bring this program on line as quickly and seamlessly as possible.

SENATOR LEAHY: In your estimation, is the Department on target with issuing regulations and working with states and municipalities toward the end of bringing the HOME program--at a funding level of $1 billion or more--fully on line early in fiscal year 1992?

ANSWER: The Department is fully on target in developing regulations and implementation procedures for the HOME program. The Interim Rule for the program has been completed and is expected to be published by early August, with an effective date in early September.

Any consortia to be considered for fiscal year 1992 funding will also have been recognized by then. If fiscal year 1992 appropriations are enacted by the end of fiscal year 1991, the Department will be prepared to publish a Notice of Funds Availability early in fiscal year 1992 (within the statutory 20 days following OMB apportionment of funds).

However, the HOME statute provides that a jurisdiction must have an approved Comprehensive Housing Affordability Strategy (CHAS) before it can apply for HOME funds. Since the first CHASs will not be submitted until the end of October and will not be approved until the end of December, applications for HOME funds will not be submitted to HUD until mid-February 1992. The first grants approved by HUD will be in March, about half-way through fiscal year 1992.

The size of the HOME appropriation will not affect this schedule. The higher the appropriation, the greater the number of eligible participating jurisdictions, but the Department anticipates that it can handle the increased workload within the same time frame.
If any State chooses not to participate in the HOME program, a HUD-administered competition for funds among local jurisdictions in that State will be held, and the first grants for that State will be approved somewhat later.

Meanwhile, the Department is conducting intensive training of its Field Offices staff this summer on the HOME program, and will subsequently be conducting workshops for State and local potential participating jurisdictions during the fall and winter to insure the smoothest possible transition into the new program. HUD Headquarters staff have already been traveling extensively around the country, conducting briefings on the program for States, cities, and nonprofit organizations.

QUESTIONS SUBMITTED BY SENATOR FOWLER

NEHEMIAH PROGRAM PRESALE REQUIREMENT

SENATOR FOWLER: What is the reasoning behind the presale requirement in the Nehemiah Program?

ANSWER: Congress established the presale requirement under Title VI Section 606 (c) of the Housing and Community Development Act of 1987. The Nehemiah presale requirement states that 25 percent of all the units in a project must have a Contract of Sale with downpayments before any building can begin. The Congressional intent of the presale provision was to ensure a market for the units before Federal funds are committed.

QUESTIONS SUBMITTED BY SENATOR KERREY

SUBSIDIZED HOUSING

SENATOR KERREY: As you are undoubtedly aware, we have had difficulties with a privately-owned subsidized property in Omaha known as Tommie Rose. I want to review a little history of Tommie Rose and then ask a couple of questions.

From 1986 to 1989 physical inspections and management reviews conducted by HUD found Tommie Rose to be in satisfactory condition. In February and March of 1990, the City of Omaha conducted some inspections at the request of tenants. The project's physical condition was found to be unsatisfactory. In May 1990 a physical inspection by HUD resulted in a "below average" rating for Tommie Rose. The owner submitted an application for Flexible Subsidy in July 1990. In August new on-site managers were hired and the Tenant Organization retained the Legal Aid Society. In September and October, the city conducted additional inspections and found conditions of the project still poor. In October and November HUD conducted 100 percent inspection using Housing Quality Standards. The result: 89 of 100 units (21 vacant) failed housing quality standards. In other words, all of the occupied units failed an inspection using housing quality standards.

As you know, both the HUD IG and the General Accounting Office have looked at the situation. What continues to puzzle me, however, is how this was allowed to happen. How did an entire project fall into disrepair so quickly? It wasn't ten units or half the units. It was all the units that had problems before any real action was taken.

So, first of all, I would like your explanation as to what happened [at Tommie Rose].

ANSWER: The project was built in 1968 and has had four (4) different owners and several different management companies, as well as many on-site managers and staff. The project failed originally when the non-profit owner deeded the property to HUD in 1975 rather than face foreclosure. HUD sold the property in 1980 to a local owner who rehabilitated it. The property was sold to the present owner in 1985.

SENATOR KERREY: How did an entire project go from "satisfactory" to "below average" to 89 out of 100 units failing housing quality standards in about a years time?

ANSWER: The Field Office in Omaha reviewed the project in prior years and reports that the project did in fact experience a downturn in only a year's time. The specific causes for the downturn at Tommie Rose are not known.

It should be noted that the deterioration in the project didn't move from "satisfactory" to "below average" to 89 out of 100 units failing housing quality standards." A routine inspection indicated that the property was "below average" and efforts were begun to correct the problems. The "89 out of 100 units failing housing quality standards" were identified in a 100 percent inspection of the property once problems had been identified and were consistent with the "below average" rating.

Also, of the 68 occupied units that failed the 100 percent Housing Quality Standards (HQS) inspection, 40 failed for reasons deemed easy and inexpensive to repair, e.g., an exhaust fan that was disconnected, a chipped bathtub and water stains.

SENATOR KERREY: What inspection standards was HUD applying at the time?

ANSWER: Initial inspections were done to "Decent, Safe and Sanitary (DSS)" standards which were the general quality standards for insured housing.

In the past, HUD insured projects with Section 8 assistance were inspected with both DSS standards and the more definitive HQS. In an effort to avoid confusion about which standard should be used, the Comprehensive Servicing Guidelines (91-22) were instituted in March 1991. These guidelines specifically dictated that a minimum of HQS must be used in all projects with Section 8 assistance.

SENATOR KERREY: Were the standards sufficient?

ANSWER: Yes. In the case of Tommie Rose, the inspection using DSS standards determined that there were problems at the project and it was rated "below average." At that time HUD began the process of seeing that necessary repairs were initiated.

While the project will now be regularly inspected using HQS and reviewed more extensively through the Comprehensive Servicing Guidelines, the DSS review did identify the problems that existed.

SENATOR KERREY: Are they the same standards which are now being used?

ANSWER: As noted previously, the new Comprehensive Servicing program dictates that a minimum of HQS be used in all assisted housing inspections. This does not preclude other standards but simply sets specific minimum standards.

Additionally, local codes are also taken into consideration by inspectors. These habitability standards reflect the local goals for livability in the jurisdiction where the project is located. HUD standards, whether HQS or DSS, may be higher or lower. Generally, HUD will require the owner to abide by the more stringent standard.

SENATOR KERREY: Were inspections conducted to standards, i.e., were the inspections sufficiently comprehensive and complete so that an adequate judgement could be made as to whether or not the standards which were being used--whatever they were--were actually being met?

ANSWER: Yes. Looking at the past inspections, except for the 100 percent HQS inspection, the standard had been DSS in which a statistical sample of units are inspected. In the DSS inspection performed just prior to the 100 percent HQS inspection, 11 units were inspected. The overall rating fell from satisfactory to below average indicating problems. This allows for the greatest amount of coverage of projects and when problems are noted, staff can be brought in for an inspection of 100 percent of the units.

Under the Comprehensive Servicing program the same standards would be used. However as noted previously, to improve the reviews, minimum standards for all assisted projects would be HQS, thus eliminating confusion and additional review procedures.

SENATOR KERREY: What system or process does HUD have in place to alert it to potential problems?

ANSWER: In the past, the primary tools used by HUD staff were the management review, the physical inspection report and the annual financial statement review. Field staff visited projects to monitor and evaluate the efficacy of the operations. Field office staff monitored the fiscal operations annually with a review of an audited financial report. The Field Offices received inspections done by the mortgagee and early warnings of possible default were transmitted to HUD Headquarters and Field Offices in cases where mortgage payments were not made by the 15th of the month.

Using only these reviews, HUD found that a project's problems may have been evolving for a period of time before it came to the attention of the Department. More intensive efforts were directed at known troubled properties and some Field Offices opted to do less comprehensive reviews, while seeing a larger number of projects in hopes of discovering developing problems early. However, none of these approaches was entirely acceptable as sufficient early warning.

While the above tools are still available and being used, this Administration has been taking steps to enhance HUD's ability to detect problems and take prompt action. One of the largest steps was the production of the Comprehensive Multifamily Servicing Program, published March 11, 1991 as Housing Notice 91-22. This program details a uniform and systematic approach to the servicing of HUD insured loans and the monitoring and oversight of all HUD insured, held and assisted properties. It requires a physical inspection of 100 percent of a Field Office's project portfolio during the first 12 to 18 months after the notice publication. The notice details, for the Field, the availability of contractors to do the inspections where staff resources are not sufficient. It also details the steps a Field office will take when it is determined that a project is in such a troubled state that the residents' health and safety are threatened and the owner will not take steps to correct the deficiencies. It makes it clear that HUD will not accept deteriorated housing and will take all actions it deems appropriate to assure corrections.

As a companion to this program, an early warning system was developed and is now in Departmental clearance. This system, to be used by Field, Region, and Headquarters organizations, will compile data on the results of reviews and Field monitoring of projects and will enable the Field Offices to more easily and accurately designate troubled projects for further review. Information from Field reviews, annual financial reports and existing HUD systems will be the raw data for the system. This information will allow the targeting of scarce resources to the highest risk projects.

Further, while this system is in clearance, staff in Headquarters is planning for enhancements to the system to obtain current fiscal and physical data directly from the project owners on a planned quarterly basis. With this refinement, staff will be able to develop trend analyses to better forecast an individual project's comparative health. The planned enhancements will require owners to submit to HUD Field Offices in electronic form data on accounts receivable and payable, local jurisdictional code violation notices, information on neighborhoods (particularly the presence of illicit drug activity), vacancy and turnover levels, results of operations in the ar of maintenance expenditures both budgeted and actual, gross (cash) levels of income, expenses and debt service. It is believed that with more current data, which will be machine processed, HUD will be able to more efficiently and accurately forecast problems in early stages, take prompt action to treat and then cure the problems, thereby reducing costs, potential assignments, etc.

HUD has also developed procedures for monitoring multifamily mortgagees. One of the areas stressed is the timeliness, accuracy and quality of physical inspections of insured properties.

Finally, HUD will continue taking legal action to enforce the terms of the contracts between owners and the Department.

SENATOR KERREY: How does it monitor these [systems to alert HUD to potential problem complexes]?

ANSWER: Headquarters staff reviews the performance of the Regions. As part of these reviews, the utilization of systems designed to alert Field Offices to developing problems is reviewed. If deficiencies are detected, corrective action by the Region is required. Headquarters has also undertaken to train Field and Regional staff in the Comprehensive Multifamily Servicing Program to assure that the requirements are carried out in a consistent and competent manner.

SENATOR KERREY: Does HUD have a policy with respect to non-locally owned projects where the interest of the owner is probably not as great as it would be if the owner was local?

ANSWER: HUD has no policy regarding non-local ownership of properties. HUD supports the id of local ownership, but also understands that local ownership alone does not ensure success of a project. While a local ownership interest certainly helps when a Field office must deal with a troubled project, it does not guarantee the resources that may be necessary to cure a project's problems.

SENATOR KERREY: When an owner has properties in many states, how does HUD track them all and alert local offices of problems in other areas?

ANSWER: HUD presently has two systems to alert Field Offices to problems in other areas. These systems are a quarterly publication of a list of suspended and debarred entities, and the Previous participation system, commonly referred to as the 2530 process. These systems are national wide depositories for information on program participants. Of particular interest is the 2530 system to which all HUD Field entities report problems with the ownership or management of HUD properties. This system also carries information on all suspensions and debarments.

SENATOR KERREY: Do you have any figures on what portion of subsidized projects are locally owned, versus those owned by absentee company or landlord?

ANSWER: No. Such information is not collected.

SENATOR KERREY: What assurance can you give us that Tommie Rose will not be allowed to fall into disrepair once again?

ANSWER: The Comprehensive Multifamily Servicing Program will identify, clarify and take actions to correct problems. Legal enforcement will be used, if needed, against non-cooperative owners.

SENATOR KERREY: What is HUD doing to insure that other Tommie Roses are precluded?

ANSWER: The publication of the Comprehensive Multifamily Servicing Program focuses HUD resources in a uniform and systematic process to identify, classify and then deal with projects with problems. Owners who will not cooperate in HUD's efforts to repair or revitalize the projects may find themselves subject to programmatic and legal enforcement action. In addition, HUD is moving toward a system designed to alert the Field, Region and Headquarters of developing problems at individual projects.

SENATOR KERREY: What is your recommendation to the residents of a project like Myott Park?

ANSWER: Whenever there are physical or management deficiencies existing at a HUD property, we ask the resident to bring the deficiencies to the attention of the on-site management or the management agent. If the deficiencies are not corrected to the resident's satisfaction, then the resident should contact the local HUD office. In the Comprehensive Multifamily Servicing Program, HUD staff have been instructed to take steps to assist residents and to assure that owners and their management personnel are responsive to the residents.

RESIDENT OWNERSHIP

SENATOR KERREY: What is HUD's policy on this [Sales of privately owned property to tenants]?

ANSWER: The residents of a property who are interested in purchasing would have to agree to the terms of a sale. HUD would look at the level of interest among the residents at large. Not all the residents need to agree to a sale. Prior to a transfer of ownership to the residents, they would need to form a corporate entity to own the project. The corporation would need officers who would be selected by the interested residents themselves and resolutions would have to be passed regarding the sale. HUD cannot require the residents to participate in the sale itself, although HUD may condition a sale to protect the Government's interest in the success of the project.

If an owner is interested in participating in HUD's goal of ownership, the owner should determine the interest level of the residents who are expected to form the nucleus of the new entity. There are no specific requirements for the timing of resident notification where a sale is contemplated. However, tenants must be involved, aware and agreeable. HUD must approve all sales of its properties.

In the event a transfer of ownership, whether to the residents or to another entity, is rejected by the Field office, the buyer may request the Regional Director of Housing to review the case. If a sale to a resident group was approved, then HUD would have determined that sufficient interest and support for the sale were present from the interested resident group. An appeal of the decision would not seem to be necessary.

SENATOR KERREY: What happens to those who do not want ownership?

ANSWER: Those residents who did not wish to participate as owners would not be affected. HUD would not allow sales which contemplated moving families simply because they did not wish to participate. These families could receive rental assistance, if eligible.

SENATOR KERREY: A number of questions have been raised about resident ownership. It would be helpful to have some responses for the record:

SENATOR KERREY: What are the five to ten most successful tenant ownership projects and how long has each been in tenant ownership?

ANSWER: There are currently six HUD Property Disposition sales nationwide to resident cooperatives (for occupancy by Section 8 eligible families).

Five of the six sales have occurred in the Boston Regional Office. The remaining project sale originated out of the Philadelphia Regional Office.

The resident cooperatives are, as follows:

Project	Location	Date of Sale
Charlame Park Homes	Boston	October 28, 1988
Forest Hills	Boston	October 1, 1983
Marksdale Gardens I & II	Boston	September 28, 1984
Methunion Manor	Boston	December 4, 1984
Warren Gardens	Boston	August 24, 1983
Hillside Apartments	Philadelphia	March 1, 1983

SENATOR KERREY: Under a HOPE scenario, how many different types of assistance could a project qualify for and over what period of time?

ANSWER: Under HOPE 2, applicants may receive assistance for a Planning Grant and an Implementation Grant. A Planning Grant may be expended over 3-years to organize a resident council, develop a homeownership program, and apply for an Implementation Grant.

An Implementation Grant may be expended over 4 years to acquire and rehabilitate a project and convert it to homeownership. A portion of the grant may be used for operating expenses for up to 5 years. If circumstances warrant, HUD may extend operating assistance for additional 1-year terms, subject to the availability of appropriations. However, the total term of the grant agreement, including all extensions, may not exceed 10 years.

SENATOR KERREY: At what point in the program would federal involvement and responsibility end?

ANSWER: The length of Federal involvement would not exceed 3-years for a planning grant plus up to 10 years for an implementation grant, as described above.

SENATOR KERREY: What would happen to a project which encountered difficulties after federal involvement ended?

ANSWER: Under this scenario, the HOPE 2 grantee would have successfully sold all units in a homeownership conversion project to eligible families. Thus, the multifamily project would be considered a privately owned low-income cooperative controlled by its members/residents, and as such, the project would have access to only those HUD programs for privately owned low-income housing.

SENATOR KERREY: Since many of the units to be included under HOPE are already subsidized, how will this program contribute to increasing the supply of assisted housing?

ANSWER: First, HUD will not approve an application which results in the conversion of more than 5 percent of the affordable rental housing units in the locality to homeownership. This would protect against erosion of a significant number of housing units.

Further, an entity that transfers ownership interests in units to eligible families may use proceeds from the initial sale for costs of the homeownership program, additional homeownership opportunities, and other activities approved by HUD.

The Department believes HOPE 2 grantees would use sales proceeds to promote additional low-income housing, whether rental or ownership, at the local level; and therefore, increase the supply of low-income housing nationally.

KENILWORTH-PARKSIDE

SENATOR KERREY: Kenilworth here in Washington has often been mentioned as a model for resident ownership. There have, however, been some questions about it. Please list all the grants which HUD has made to Kenilworth, the amount of each and the purpose for which each was made.

ANSWER: The following grants have been made to Kenilworth-Parkside:

1983	$13,235,364 for Rehabilitation of Dwelling Structures
1986	$86,000 for Management Improvements
1987	$9,237,475 for Rehabilitation of Dwelling Structures
1989	$4,964,192 for Rehabilitation of Dwelling Structures

SENATOR KERREY: What is HUD's current estimate of the per unit cost of this project -- please explain.

ANSWER: The Federal contribution for rehabilitation is $59,000 per unit. This cost is due to management of the rehabilitation program by the District of Columbia's Department of Public and Assisted Housing, a severely troubled public housing authority.

SENATOR KERREY: How long has this project been underway?

ANSWER: Significant activity on the rehabilitation began in the spring of 1989.

SENATOR KERREY: What is HUD's judgment of the financial stability of the project -- please explain.

ANSWER: Under the analysis performed for the sale of the first 132 units in September 1990 the prospects for long-term financial stability of the development were excellent. It is projected that the development will meet operating and capital replacement requirements, maintain level reserves, and remain affordable as a low-income, limited equity cooperative for the 20 year analysis period and beyond.

COMPUTER LOAN ORIGINATION SYSTEMS (CLOs)

SENATOR KERREY: What is the current status of the RESPA computer loan origination system proposal?

ANSWER: The RESPA Computer Loan Origination System proposal is in the draft Interim Rule stage.

SENATOR KERREY: What protections will be included to insure that consumers are protected? Will agents be required to display more than one mortgage scenario?

ANSWER: As stated in testimony before the House and Senate Banking Committees by General Counsel Frank Keating, the Department intends that CLO systems offer a range of consumer protections. A computer loan origination system must be open to any bona fide mortgage lender. The computer loan origination system must present information on all lenders in a fair and equitable manner. Prior to using a computer loan origination system, the borrowers must be notified in writing that they do not have to use the computer loan origination service. In the event that the borrower chooses to use the system, the specific services that will be performed must be disclosed. The Department will set a maximum fee that can be charged prior to the services being performed, that fee has not yet been determined.

SENATOR KERREY: Earlier, Citicorp's Mortgage Power program had received a letter declaring that the program broke no federal rules. Is Citicorp still in this favored position?

ANSWER: The Department has issued approximately five informal opinion letters in reference to computer loan origination systems, one of which concerned Citicorp's Mortgage Power program. Although technically these informal opinion letters provide no protection from the federal Government, parties have relied on their contents. The Department believes Federal policy should be established by regulation rather than informal letter, hence the current effort to establish clear guidelines for CLOs under RESPA.

SENATOR KERREY: What will the enforcement mechanisms be?

ANSWER: HUD anticipates that the computer loan origination systems will be self-policing. If a bona fide mortgage lender is not allowed to get onto a realtor-based system, the Department will likely be notified.

HOME PROGRAM

SENATOR KERREY: The match requirements for the HOME program will cause some problems for my State of Nebraska and possibly other states. Why has "cash contributions from non-federal sources" been defined to preclude debt financing as an eligible source of local match?

ANSWER: Debt financing is not automatically precluded as match. The key issue is not whether the match is provided in the form of a loan (as opposed to an outright grant) but whether the repayments of the loan are permanently dedicated to the HOME program. As long as all such repayments are deposited in the jurisdiction's local HOME Investment Trust Fund account and are used only for other HOME projects, the full amount of the loan is counted as a "contribution" toward the match requirement. Loans from banks and most forms of publicly issued bonds do not qualify as match because the repayments are made to the bank or bondholders; the loan is thus only a temporary investment in the HOME program. However, where the jurisdiction makes loans whose repayments become part of a revolving loan fund dedicated only for HOME projects, the loans count as match. Even where the face value of the loan itself cannot count as match, the value of any yield foregone, i.e., any below market interest rate that does not result from Federal tax exemption, can count as match.

SENATOR KERRY: The City Attorney for Lincoln, NE, has concluded that the city cannot meet the matching requirements because the city is precluded from using tax funds for such purposes under Article XIII, Section 3 of the Constitution of the State of Nebraska. The provision states: "The credit of the state shall never be given or loaned in aid of any individual, association, or corporation...." It is the city attorney's view that similar provisions exist in other state constitutions. Are you aware of this problem? Do you know whether or not it affects other states?

ANSWER: We are aware that in certain states, state constitutions or law prohibit or constrain the use of public tax revenues for use as grants or loans. Nebraska is apparently one such state. Similar reports have been received from jurisdictions in Kentucky. It is not clear, however, what the full impact of these restrictions may be.

SENATOR KERRY: Do you see Lincoln and other cities as being precluded from participation in the program?

ANSWER: It is too early to make such a determination. We recommend that Nebraska cities confer with the State Attorney General to review the requirements of the State constitution and laws, and with the Chief Counsel in HUD's Omaha Field Office to explore whether there are options available for the State and cities within the State to meet their match requirements. There are options for providing the match even if public funds are not loaned or granted to property owners/developers. Private contributions can count, as can public provision of administrative costs (up to 7 percent of the HOME funds), public investment in infrastructure, etc. Perhaps even if outright public grants/loans are not allowed, public forgiveness/reduction of taxes or fees would be. HUD's automatic crediting of all participating jurisdictions with 7 percent of their entire initial grant amount for administrative costs should be sufficient to meet forseeable match requirements for the first year since match is needed only on the HOME funds actually expended by the end of the fiscal year. This would allow time for the State to take the necessary measures to amend State law or the State constitution.

COMMUNITY DEVELOPMENT BLOCK GRANTS

SENATOR KERREY: How many entitlement communities are there now; how many were there three years ago? five years ago?

ANSWER: The following table shows the information requested:

	1991	1988	1986
Number of CDBG Entitlement Cities..	757	736	711
Number of Urban Counties...........	125	121	116
Total..........................	882	857	827

SENATOR KERREY: How much will be allocated to each of Nebraska's entitlement communities and to the State under the fiscal 1991 appropriation? Under the fiscal 1992 request?

ANSWER: Nebraska has two entitlement communities: Lincoln and Omaha. Lincoln received $1,510,000 in 1991 and would receive $1,378,000 under the 1992 request. Omaha received $4,920,000 in 1991 and would receive $4,490,000 under the 1992 request. Nonentitlement funding for Nebraska was $11,323,000 in 1991, and would be $10,332,000 under the 1992 request.

OMAHA TRIBE

SENATOR KERREY: Last year the Omaha Tribe of Nebraska's Tribal Housing Authority applied for one of HUD's Public Housing Drug Elimination Grants. The Tribe applied for a $94,000 grant. On September 28, 1990, the Region 8 Director, Mr. Michael Chitwood sent the Tribal Housing Authority a letter informing them that they had been awarded a grant for $307,000. Naturally, the Housing Authority was surprised and when they questioned the Regional Office about their grant award they were informed that due to Tribe's outstanding program that they had been awarded additional funding. Although Mr. Chitwood pointed out later that this was an error and that the Housing Authority was not eligible for more than $94,000, this apparent error ended up costing the tribe some $10,800 as they prepared additional programs to ensure that they additional funds were will spent. It should also pointed out for the record that the Federal Register announcement (July 3, 1990, page 27622) grants HUD, the authority "to determined the amount of any grant award."

Mr. Secretary, I am very disappointed with manner in which your Department handled this matter and the fact that this apparent error ended up costing the tribe some $10,800. I would appreciate an explanation of how this error occurred.

ANSWER: The total entered on the "Amount of Grant Funds Requested" block of the Scoring Sheet, Form HUD 52351 in the amount of $412,815.00, was inadvertently obtained from line 15g of Form SF-424, "Application for Federal Assistance" rather than line 15a, Federal portion in the amount of $98,363.00. The error in the selection of $412,815 as the amount of grant funds requested was further compounded in that the 307 units were incorrectly calculated at $1,000 per unit. This accounts for the second error in determining the amount of grant funds requested. The total allowance should have been calculated based on 307 units, per the scale as published in the NOFA, i.e., "100-499 units: the maximum grant award is $100,000;" which is in line with the actual amount requested by the applicant. The $412,815 was only determined to be ineligible by the reviewer based upon the total number of units (307).

It is apparent that this error was completely unintentional and not meant to be a fraudulent act. The numbers in question were interpreted in the wrong fashion thereby causing the mix-up in funding amounts.

QUESTIONS SUBMITTED BY SENATOR D'AMATO

SECTION 811 COST LIMITS

SENATOR D'AMATO: Mr. Secretary, Section 811(h)(1) of NAHA states that HUD "shall use data that reflect currently prevailing costs of construction in the area" for purposes of determining development cost limitations for the Supportive Housing Program for Persons with Disabilities. Despite this language, HUD's draft implementing regulations restate last year's final development cost limitations (260 percent of base) which are far too low to accommodate meritorious and needed projects in New York. Can you explain why the limits were not changed and how HUD expects elevator, fireproof, small buildings for the physically handicapped in high cost areas like New York to proceed?

ANSWER: The limits were not changed because the cost limits have proved to be workable for most projects, even in places like New York City. The cost limits do reflect a modest hidden increase, inasmuch as construction interest representing approximately 5 percent of replacement cost was included in mortgages under the old Section 202 program, and there is no construction interest included in the capital advance under the Section 811 program. The Department does not believe that the cost limits should be tailored to specific projects. Cost limits which are tailored to the most costly kinds of construction tend to distort the program, thereby providing fewer housing units within available funding.

SENATOR D'AMATO: Won't HUD's refusal to make the regulatory adjustment necessary for this program lead to a pipeline of projects that can't go forward?

ANSWER: No. We believe that very few applicants will propose projects that exceed the cost limits, unless they have access to state or other funds for the shortfall. Further, we believe the cost limits will be sufficient for the replacement cost of modestly designed housing for persons with disabilities.

FEDERAL HOUSING ADMINISTRATION REFORMS

SENATOR D'AMATO: Last year, the Congress worked with the Administration to develop an adequate reform package to address the deteriorating financial health of the FHA program. Can you tell me what HUD has done to implement this reform package and what the current and projected status of the FHA fund is?

ANSWER: Since the FHA reforms were signed into law late last year, the Department has drafted implementing regulations. These regulations represent strong corrective actions that were necessary to achieve actuarial soundness and continued solvency of the FHA Mutual Mortgage Insurance Fund.

The Department has published and implemented regulations banning investors from FHA insured mortgages. The Department has also published regulations requiring that insurance premiums be risk-related, with higher premiums for lower down-payments. This mortgage insurance regulation is effective July 1, 1991. In addition, HUD has published two regulations requiring that FHA borrowers have a real equity interest in their homes. The first regulation implemented maximum loan-to-value caps and was effective on February 17, 1991. The second regulation restricts to 57 percent the amount of closing costs that can be financed and is effective July 1, 1991.

The most recent data on the condition of the Fund indicates that the reforms implemented this year were both prudent and responsible, and that lesser actions would have failed to achieve actuarial soundness of the Fund. The equity position of the Fund as audited for 1989 is a positive $1.02 billion, down from $1.8 billion the previous year. Once the regulations are effective, and barring further adverse economic conditions, the Fund should begin to stabilize.

DEFAULT RATES AND THE MMI FUND

SENATOR D'AMATO: What has been the impact of falling home prices on the default rates suffered by FHA and the financial health of the FHA MMI fund? Even though Price Waterhouse's audit on FHA for 1989 showed that default rates were better than earlier years, is FHA out of the woods yet? Will the impact of falling home prices be seen in the 1990 Price Waterhouse audit of FHA?

ANSWER: First, the question of whether or not real home prices have fallen or not is, like the status of the economy in general, subject to much debate. The news media have published numerous stories pointing to declines in the average selling prices of homes as evidence that home values are decreasing. This relationship is far from clear because it is based only on homes sold. In times of economic difficulty, higher priced homes tend to be more difficult to sell and thus the average price of the homes actually sold declines.

What we do know is that in the first quarter of calendar 1991, FHA loans delinquent 60 days or more were 3.48 percent of loans outstanding, up from 3.08 percent in 1990. Loans 90 days or more delinquent were 2.41 percent, up from 2.32 percent in 1990. Both of these rates were down from the last quarter of 1990, when the rates were 3.58 and 2.45 percent respectively. (These rates are based on the average rates reported by the Mortgage Bankers Association, FHA and FNMA).

Single family claims paid through May 1991 were approximately $2.9 billion which was $134 million less than the claims paid through the same period in 1990.

At the same time, the impact of a decline in real home prices could be severe. First, it would tend to increase claims and, secondly, reduce the amount HUD receives when foreclosed homes are sold. This is obviously one of the factors being considered by Price Waterhouse.

FHA CLOSING COSTS

SENATOR D'AMATO: HUD has published its regulations to restrict to 57 percent the portion of closing costs that can be financed by a home buyer. What chance would FHA have of reaching the 1.25 percent capital ratio mandated under the 1990 Housing Act if this regulation were not allowed to take effect? What chance would FHA have of achieving an overall financial recovery?

ANSWER: Without the 57 percent cap, the Department will not be assured of reaching the goals set for actuarial soundness of the MMI Fund within statutory timeframes. If the Department continued to insure mortgages with a high percentage of financed closing costs, it is very unlikely that a capital ratio of 1.25 percent would be attained within 24 months. It is likewise doubtful that an overall financial recovery could occur without all of the FHA reform pieces in place and in effect.

SENATOR D'AMATO: When we worked to reform FHA in the 1990 Housing Act it was contemplated that FHA home buyers at all income levels would bear some of the burden of raising more cash for FHA. Isn't it true that one of the goals of the HUD regulation to limit the financed portion of closing costs to 57 percent is to assure that all home buyers pay some increased cash at closing?

ANSWER: Loan-to-value caps alone will not enable the Department to reach the 1.25 percent capital requirement. In addition, loan-to-value caps do not affect all FHA home buyers proportionately and would concentrate the need for upfront cash among lower-income homebuyers. The 57 percent rule makes FHA reform more equitable by requiring high-risk borrowers in all income ranges to put more equity in their home. The following table reflects minimum equity as a percent of property value prior to passage of NAHA, with LTV caps alone, and with the LTV cap plus the 57 percent regulation.

HOME PROGRAM

SENATOR D'AMATO: The HOME program requires grant recipients to match federal dollars with a local contribution. HUD recently issued regulations for comments which describe how HUD will implement the matching requirement. Specifically relating the matching requirement and tax-exempt financing: How will the Department treat funds raised by general obligation bonds?

ANSWER: If the bond proceeds are loaned to HOME projects and any repayments from those loans are permanently dedicated to the HOME program for use in other HOME projects (i.e., appropriated funds, rather than loan repayments are used to repay the bondholders), the full amount of any such loans would count as match.

SENATOR D'AMATO: What if, for reasons of state municipal finance law, the transaction takes the legal form of a loan, but there is really no repayment expected?

ANSWER: It doesn't matter if the transaction takes the form of a loan, provided that the loan terms account for any repayments (even if the loan will ultimately be forgiven) to be deposited in the state's/jurisdiction's HOME Investment Trust Fund account for use only for other HOME projects.

SENATOR D'AMATO: What if the transaction is a loan, but at a rate below the interest rate the municipality is paying on the bonds, where the municipality subsidizes the loan from its general revenues?

ANSWER: If the loan repayments are dedicated to the HOME Program, the full amount of the loan itself can count as the match. If, however, the repayments do not remain in the program but go to the bondholders, the value of the difference between the interest paid the bondholders and the (lower) interest charged on the HOME project loans would count as match.

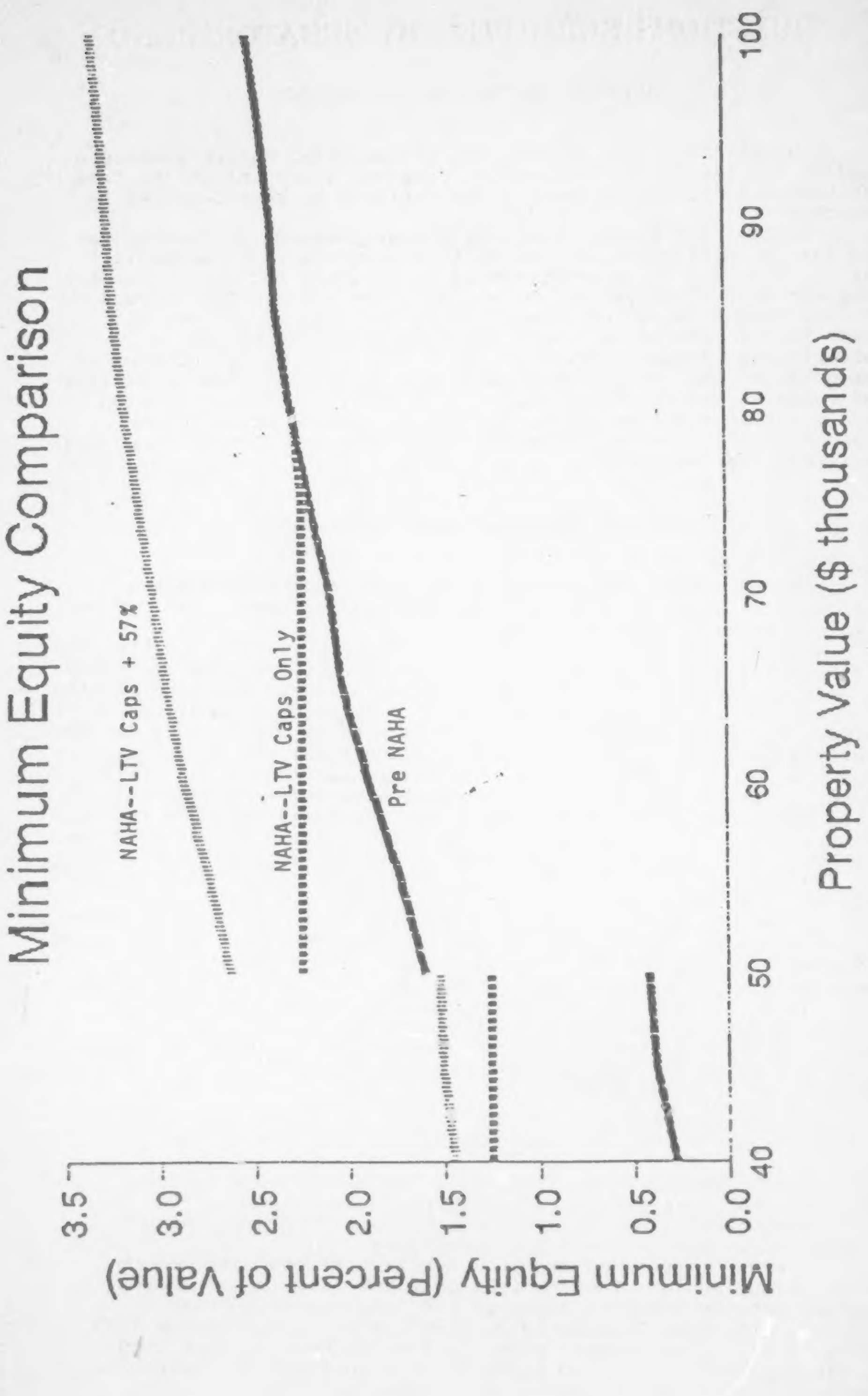
SENATOR D'AMATO: What if the bonds are revenue bonds, but the payment is from some other source than the HOME project itself?

ANSWER: If the revenue bondholders are repaid from some other public source, the bond proceeds are loaned to HOME projects, and the repayments are dedicated permanently to the HOME program, the full value of the loans counts as match. Normally, however, revenue bondholders are repaid from the repayments of the loans made from the bond proceeds, in which case only the interest rate differential, if any, below the rate paid the bondholders could count as match.

SENATOR D'AMATO: What is the Department's position regarding proposals to modify the statutory language regarding the matching contribution to clarify that debt financing is an eligible activity?

ANSWER: The interim regulations about to be issued for the program will clarify that debt financing can qualify as match provided it is a permanent contribution to the program, i.e., any repayments remain in the HOME Investment Trust fund for re-use only for other HOME projects.

The Department would oppose any statutory change which would allow all debt financing as match. Most debt financing, such as bank loans, are only temporary investments in the HOME program, since the repayments return to the lender and are not permanently committed to the HOME program. If all leveraged financing were to count as match, the current statutory match requirements of 25 percent, 33 percent, and 50 percent would be much too low. Since most development projects involve much more private leverage, in the form of owner equity and bank financing, the match requirement at current levels would become an administrative burden which generated no increase in State, local, or private financial commitment to affordable housing.


Minimum Equity Comparison
Minimum Equity (Percent of Value)
Property Value ($ thousands)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
40
50
60
70
80
90
100
NAHA--LTV Caps + 57%
NAHA--LTV Caps Only
Pre NAHA

QUESTIONS SUBMITTED BY SENATOR BOND

NATIONAL AFFORDABLE HOUSING ACT

SENATOR BOND: Why did the fiscal year 1992 Budget propose no funding for the Family Unification Program, a new initiative from the National Affordable Housing Act designed to keep families together?

ANSWER: The fiscal year 1992 Budget proposed no funding for the Family Unification Program because we are able to accomplish this goal within our regular rental certificate and rental voucher programs without a special set-aside. PHAs are already allowed to provide tenant selection preference to families to prevent or cease foster care situations. The Department is opposed to establishing special set-asides which restrict the use of limited resources to one purpose and hamper the ability of PHAs to utilize the funds to assist other families. Further, it is our opinion that creating a set-aside for family unification may, in some cases restrict the overall amount of housing assistance being made available for that purpose.

Allocation of Personnel and Travel Funds

SENATOR BOND: How are your personnel and travel dollars allocated between HUD's central and regional offices? How are the allocations made among the regions?

ANSWER: The allocation of personnel between HUD's central and the Regional offices as presented in the Budget each year is based on several factors. One of these is the estimated workload for the HUD Field Offices. Through the use of a resource allocation guidelines system, planned work accomplishments are related to the staffing required to achieve them. In addition, the potential impact of new programs and initiatives are considered for their impact on staffing needs. For Headquarters, staffing generally is based on historic levels to support the functions assigned to HUD's central offices. After appropriations are enacted by the Congress, the Department follows the guidance issued in the Appropriations Act and the Committee Reports, and staffing is allocated among the regions based on enacted program funds.

Travel amounts are allocated based on historical use patterns in the Regions. These take into account the result of geographical differences among the regions and the staffing levels. In the Department's budget submitted to the Congress, the travel request also takes into account inflation assumptions and identifiable special needs. After appropriations are enacted, the amounts available are allocated among the regions within available funds, generally using the historic factors and pro-rating after adjusting for special circumstances.

CIAP FORMULA

SENATOR BOND: What effect will the new formula funding for CIAP that goes into effect next year have on the distribution of CIAP to the various regional offices? Will it substantially change where the money goes?

ANSWER: There will not be a substantial regional change in the distribution of modernization funds under the formula funding program which is known as the Comprehensive Grant Program. The formula that is currently used to distribute CIAP funds is highly correlated with the formula that will be used to distribute CGP funds to entitled PHAs/IHAs and to distribute residual CIAP funds to non-entitled PHAs/IHAs.

HOME

SENATOR BOND: Please explain HUD's position on why publicly issued debt financing should not qualify as a local match to meet the requirements of the HOME program. Under what circumstances would it be appropriate for HUD to make use of its discretionary authority to waive part of the local match requirement.

ANSWER: Publicly issued debt financing is not automatically disqualified as a local match. The HOME legislation requires that a match be a permanent contribution to the HOME program. The full amount of loans made from publicly financed bond proceeds can count as a match only if all repayments from those loans are deposited in the jurisdiction's local HOME Investment Trust Fund account and used only for other HOME projects. This is not normally possible under most forms of bond financing where loan repayments must be used to pay back the bondholders. However, in the case of general obligation bonds, where public appropriated funds rather than loan repayments are used to repay the bond holders, the full amount of the loans can be credited as a match provided the repayments are permanently dedicated to the HOME program.

When the repayments of publicly issued debt financing are not dedicated to the HOME program, the full amount of the loans cannot count as a match, but any yield foregone on those loans can count as match unless the foregone yield results from Federal tax exemption.

The statute permits HUD to waive up to 75 percent of the first year's match requirement for a jurisdiction, up to 50 percent of the second year's requirement, and up to 25 percent of the third year's requirement. The HOME regulations will provide that HUD will consider approving such requests from jurisdictions with high poverty levels and low per capita incomes where they can demonstrate that they cannot provide the required match.

CONSOLIDATED SUPPLY PROGRAM

SENATOR KIT BOND: Several of the small PHAs in Missouri have complained to me about the proposed termination of the Consolidated Supply Program. They claim that it will increase their costs to put contracts out for local competitive bidding. I understand that there were abuses under this program and I applaud your efforts to clean it up, but did HUD consider reform alternatives short of terminating the program? Is elimination of the program the only solution?

ANSWER: Yes we did consider alternatives. Those considered were:

(1) Award only non-installed items (Discontinue installed items). Under this method, contracts would be awarded on a Freight on Board (F.o.b) origin basis and PHAs/IHAs would be responsible for arranging their own shipping and installation.

PRO: Eliminates contingency pricing to cover installation costs anywhere in a Region; helps reduce abuses between PHAs and contractors in adding services to outside the scope of contracted installation work.

CON: Complicates the procurement process for PHAs because they must contract separately for installation or their own labor force; contractors normally will not offer installation services separate from product purchase; finger-pointing would occur as damages would be disputed between manufacturer and installer. Limited volume resulting from using only non-installed items (59 percent of sales referenced in the audit) make justification for continuation questionable.

(2) Make PHAs compete among all CSP contractors (2nd round of quotes). PHAs/IHAs would not simply issue orders against CSP contracts; instead, they would require CSP contractors to submit a second bid and compete among each other-the lowest bid in this second competition would be awarded the contract.

PRO: Helps ensure better pricing.

CON: Complicates and lengthens the procurement process: easier for PHAs simply to but the items on their own.

(3) Revise Bidding. Eliminate use of average bid and replace with use of lowest bidder or possibly to lowest 25 percent of bidders instead of lowest 50 percent.

PRO: Ensures most favorable pricing.

CON: Reduce number of sources available; low bidder may be unable to supply entire quantity required.

(4) Continue program as is with a 10 percent ceiling on change orders for installed products. Under this option, the existing program would only be modified to allow PHAs/IHAs to approve change orders that result from anticipated job site conditions up 10 percent of the installation price. Costs above that level would have to be approved by HUD.

PRO: Help limit costs of specific change orders.

CON: Partial solution to only part of one of a myriad CSP deficiencies\problems.

In view of the pros and cons noted, in our view, termination of CSP was the most appropriate course of action.

QUESTIONS SUBMITTED BY SENATOR BYRD

COMMUNITY DEVELOPMENT BLOCK GRANTS

SENATOR BYRD: The FY 1992 President's budget includes 2.9 billion for the Community Development Block Grant (CDBG) program, which is a decrease of $280 million beleow the amount provided by Congress in FY 1991. The Community Development Block Grant program has provided West Virginia communities with the flexiblility to design local programs, tailored to solving local needs, determined through the involvement of local citizens.

Please provide for the record the level of funding that has been available for the Community Development Block Grant at the national level, and at the West Virginia level, over each of the last five years. Please provide for the record a listing of grants made to West Virginia communities over each of the last five year, including the amount, the grant recipient, and the purpose of the grant. Please give some specific examples of how this program has strengthened and helped finance the infrastructure needs in West Virginia.

ANSWER:

CDBG Funding for the period 1987 to 1991

	FY 1987	FY 1988	FY 1989	FY 1990	FY 1991
		(Dollars in millions)			
National Funding for CDBG	$3,000	$2,880	$3,000	$2,915	$3,200

CDBG Funding for West Virginia

	FY 1987	FY 1988	FY 1989	FY 1990	FY 1991
		(Dollars in thousands)			
Entitlement Cities:					
Charleston	$1,960	$1,844	$1,918	$1,851	$2,048
Huntington	2,064	1,960	2,038	1,987	2,201
Parkersburg	949	918	955	928	1,033
Weirton	413	393	409	418	463
Wheeling	1,391	1,352	1,406	1,352	1,501
Allocation to West Virginia for Smaller Communities	14,962	14,406	15,010	14,415	16,099
TOTAL CDBG FUNDING	21,739	20,873	21,736	20,951	23,345

NOTE: Section 105 of the Housing and Community Development Act of 1974, as amended, permits a number of activities to be undertaken by communities assisted under the program, ranging from the provision of public facilities or services to economic development or residential rehabilitation and, in some cases, substantial reconstruction of housing.

The following are examples of how Entitlement Cities in West Virginia have used CDBG funds to finance their infrastructure needs:

CDBG Entitlement

The West Virginia communities of Charleston, Huntington, Parkersburg, Weirton, and Wheeling, WV reported spending $3,461,350 for public facilities and improvements during the period July 1, 1988 to June 30, 1989.

Appproximately $1,576,674 of those expenditures were for public improvements with $847,454 for street improvements; $599,290 for water/sewer improvements; $66,810 for sidewalk improvements; and $63,120 for tree planting cleanup.

> Charleston, WV spent $142,361 to install storm drainage systems on 58th Street, Pansy Drive and Hanna Drive and $124,692 to pave various streets in low-and moderate-income areas.
>
> Huntington, WV spent $407,977 to install 3,094 linear feet of 18"-60" pipe for storm sewers in a slum blight-designated area of Westmoreland Street along Park Avenue to west end of Vinson HS field, north and along Lee Street to and along Piedmont Road to Krout's Creek.
>
> Parkersburg, WV spent $68,305 for street reconstruction, sidewalks, and storm drainage improvments in low-and moderate-income areas along parts of Pope, Grafton, Fairfax, Ninth, Tenth, Twelfth, Thomas, Niagara, Latrobe, Shrewsberry, Lenore, Erie Streets and Eighth Avenue.
>
> Wheeling, WV spent $104,588 to resurface approximately 1.9 miles of deteriorated streets in low and moderate income areas along, streets in low and moderate income areas along Stone, South Wabash, Virginia, Eoff Streets and Rocky Point Road. Approximately $174,671 also went for renovation of Centre Market buildings which included a new roof, storefronts, restrooms, restoration of cast iron columns, a 300 ft. storm drain, paving 11,000 square feet with conrete paving stone, landscaping, decorative street lighting, and either repaving or replacing streets, curbs and sidewalks.

The following are examples of how smaller communities in West Virginia have used CDBG funds to finance their infrastructure needs.

State CDBG

The State of West Virginia allocated $11,093,894 of its 1989 grant for infrastructure improvements, with $4,998,317 for sewer improvements, $3,989,064 for water improvements, $1,540,710 for street improvments, and $565,803 for flood drainage improvements.

> Blackville, WV allocated $110,000 to install 17,292 linear feet pressure sewer; 99 septic tanks, and a subsurface sand filter treatment system.
>
> Boone County, WV allocated $545,264 for 10.7 miles of water lines along Route 85 and a 150,000 gallon storage tank.

Bradshaw, WV allocated $315,803 to construct a sewer collection and treatment facility including 32,948 linear feet collection line.

Clarksburg, WV allocated $250,000 to develop an industrial park site for West Virginia Life Science Development Center: construct 28,325 square feet of sidewalk, install 6,000 linear feet of cable, 40 lights, 6,000 linear feet for gas lines, electric power, and landscaping.

Jackson County allocated $200,000 to construct 35,500 linear feet of water line, 100,000 gallon storage tank, 63,000 linear feet of sewer lines, and 113,000 GPD treatment plant to serve Fairplains.

Winfield, WV allocated $108,370 to construct 5,000 linear feet of sewer lines to connect 40 residences to existing municipal treatment system.

SENATOR BYRD: How would the Administration's proposed cutback of approximately $280 million in the CDBG program impact on West Virginia in terms of funds and estimated number of projects funded?

ANSWER: The CDBG program allocations to West Virginia's five formula entitlement cities and to the State itself, for support to smaller communities in your State, would total $21.3 million under the Administration's request for 1992. This amount is higher than West Virginia's allocation of $20.9 million in 1990, but due to the substantially higher appropriation provided by the Congress in 1991, it would be slightly more than $2 million less than the 1991 allocation of $23.3 million.

SENATOR BYRD: Are any other programs being increased to offset the cutback in the CDBG program in West Virginia?

ANSWER: The HOME Investment Partnerships program, authorized under Title II of the National Affordable Housing Act, and proposed for funding at $1 billion in 1992, would provide a formula allocation to the State of West Virginia of approximately $5.96 million. These funds can be used for tenant-based rental assistance; acquisition, and rehabilitation of affordable rental and ownership housing; as well as for construction of housing under certain limited circumstances.

SENATOR BYRD: If so, what assurances can you give me whatever other programs may be increasing will be directed at West Virginia, so as to prevent a decrease in the level of effort for community development?

ANSWER: Funding provided under the HOME program is formula-driven and based on objective measures of need. West Virginia will receive its share of the total appropriation based upon its need as measured by the factors in the HOME formula.

LISTING OF GRANTS TO WEST VIRGINIA COMMUNITIES

This information is from the Performance Evaluation Reports. It contains fiscal year, city, amount and purpose.

FY	CITYNAME	AMOUNT	PURPOSE
83	ANAWALT	219118	PUB FAC AND IMPROV
83		23900	PUB FAC AND IMPROV
83		60	HOUSING
83		56181	HOUSING
83		33650	PUB FAC AND IMPROV
89	ANSTED	329500	PUB FAC AND IMPROV
83	BARBOURSVILLE	603210	PUB FAC AND IMPROV
83		67035	PUB FAC AND IMPROV
83		24755	PUB FAC AND IMPROV
84	BECKLEY	198043	PUB FAC AND IMPROV
84		198043	PUB FAC AND IMPROV
84		30914	PUB FAC AND IMPROV
89	BEECH BOTTOM	12849	PUB FAC AND IMPROV
89		220051	PUB FAC AND IMPROV
89		79594	PUB FAC AND IMPROV
89		8206	PUB FAC AND IMPROV
85	BELINGTON	222477	PUB FAC AND IMPROV
86		222477	PUB FAC AND IMPROV
85		17555	PUB FAC AND IMPROV
86		17555	PUB FAC AND IMPROV
84	BENWOOD	375500	PUB FAC AND IMPROV
84		94500	HOUSING
84		30000	PUB FAC AND IMPROV
88	BEVERLY	488000	ECONOM DEVELOP
89		94365	PUB FAC AND IMPROV
88		12000	ECONOM DEVELOP
89	BLACKSVILLE	83960	PUB FAC AND IMPROV
89		6040	PUB FAC AND IMPROV
89		10000	PUB FAC AND IMPROV
89	BLUEFIELD	14178	PUB FAC AND IMPROV
89		11909	PUB FAC AND IMPROV
89		115688	PUB FAC AND IMPROV
89		36861	PUB FAC AND IMPROV
89		17864	PUB FAC AND IMPROV
89	BRADSHAW	28625	PUB FAC AND IMPROV
84		17900	PUB FAC AND IMPROV
84		1079	PUB FAC AND IMPROV
89		159013	PUB FAC AND IMPROV
84		58895	PUB FAC AND IMPROV
89		90665	PUB FAC AND IMPROV
84		22126	PUB FAC AND IMPROV
89		37500	PUB FAC AND IMPROV

FY	CITYNAME	AMOUNT	PURPOSE
89	BRAMWELL	73000	PUB FAC AND IMPROV
89		35657	PUB FAC AND IMPROV
89		335460	PUB FAC AND IMPROV
89		18000	PUB FAC AND IMPROV
89	BRIDGEPORT	135000	HOUSING
89		15000	HOUSING
89	BUCKHANNON	102050	PUB FAC AND IMPROV
89		127700	PUB FAC AND IMPROV
89		9750	PUB FAC AND IMPROV
83	BUFFALO	11766	PUB FAC AND IMPROV
89		490333	PUB FAC AND IMPROV
83		27984	PUB FAC AND IMPROV
83		5000	PUB FAC AND IMPROV
83		5250	PUB FAC AND IMPROV
89		9667	PUB FAC AND IMPROV
84	CLARKSBURG	39535	PUB FAC AND IMPROV
84		140296	PUB FAC AND IMPROV
84		46962	PUB FAC AND IMPROV
89		232500	PUB FAC AND IMPROV
84		64467	PUB FAC AND IMPROV
84		124254	PUB FAC AND IMPROV
84		50000	PUB FAC AND IMPROV
89		17500	PUB FAC AND IMPROV
84		30700	PUB FAC AND IMPROV
88	CLAY	5000	PUB FAC AND IMPROV
88		80000	PUB FAC AND IMPROV
88		13800	PUB FAC AND IMPROV
88		1200	PUB FAC AND IMPROV
82	DELBARTON	25347	PUB FAC AND IMPROV
82		120643	PUB FAC AND IMPROV
82		79010	PUB FAC AND IMPROV
82		25000	PUB FAC AND IMPROV
89	ELIZABETH	16683	PUB FAC AND IMPROV
85	FAIRMONT	110350	PUB FAC AND IMPROV
86		47289	PUB FAC AND IMPROV
85		63671	PUB FAC AND IMPROV
86		27285	PUB FAC AND IMPROV
85		1640	PUB FAC AND IMPROV
86		703	PUB FAC AND IMPROV
85		19229	PUB FAC AND IMPROV
86		40000	PLANNING
86		8240	PUB FAC AND IMPROV

FY	CITYNAME	AMOUNT	PURPOSE
83	FAIRVIEW	4981	PUB FAC AND IMPROV
83		251503	PUB FAC AND IMPROV
83		19000	PUB FAC AND IMPROV
83		17014	PUB FAC AND IMPROV
89	HANDLEY	190000	PUB FAC AND IMPROV
89		10000	PUB FAC AND IMPROV
89	HARRISVILLE	600000	PUB FAC AND IMPROV
84	HILLSBORO	10000	PUB FAC AND IMPROV
84		20920	PUB FAC AND IMPROV
84		30650	PUB FAC AND IMPROV
89	HINTON	181231	PUB FAC AND IMPROV
89		33334	PUB FAC AND IMPROV
89		10435	PUB FAC AND IMPROV
84	HUNDRED	35000	PUB FAC AND IMPROV
84		408354	PUB FAC AND IMPROV
84		57817	PUB FAC AND IMPROV
89	IAEGER	138840	PUB FAC AND IMPROV
84		26290	PUB FAC AND IMPROV
89		22887	PUB FAC AND IMPROV
84		172250	HOUSING
84		22060	HOUSING
89		16173	PUB FAC AND IMPROV
89	KENOVA	178750	PUB FAC AND IMPROV
89		10000	PUB FAC AND IMPROV
89		11250	PUB FAC AND IMPROV
89	KEYSER	18000	PUB FAC AND IMPROV
89		251450	PUB FAC AND IMPROV
89		21750	PUB FAC AND IMPROV
89		7000	PUB FAC AND IMPROV
84	KEYSTONE	30000	PUB FAC AND IMPROV
84		431000	PUB FAC AND IMPROV
84		5000	PUB FAC AND IMPROV
84		29000	PUB FAC AND IMPROV
86	LESTER	239750	PUB FAC AND IMPROV
86		10250	PUB FAC AND IMPROV
85	LOST CREEK	18025	PUB FAC AND IMPROV
85		106157	PUB FAC AND IMPROV
85		23860	PUB FAC AND IMPROV
85		15000	PUB FAC AND IMPROV

FY	CITYNAME	AMOUNT	PURPOSE
86	LUMBERPORT	1286	PUB FAC AND IMPROV
86		20915	PUB FAC AND IMPROV
86		5287	PUB FAC AND IMPROV
86		157312	HOUSING
86		13201	PUB FAC AND IMPROV
85	MANNINGTON	208758	PUB FAC AND IMPROV
86		208758	PUB FAC AND IMPROV
85		31243	PUB FAC AND IMPROV
86		31243	PUB FAC AND IMPROV
89		36000	PLANNING
85		10000	PUB FAC AND IMPROV
86		10000	PUB FAC AND IMPROV
89		4000	PLANNING
87	MARLINTON	97784	ECONOM DEVELOP
86		108055	ECONOM DEVELOP
87		10271	ECONOM DEVELOP
86		258085	ECONOM DEVELOP
87		258085	ECONOM DEVELOP
86		500	ECONOM DEVELOP
87		500	ECONOM DEVELOP
86		8360	ECONOM DEVELOP
87		8360	ECONOM DEVELOP
89	MARMET	50000	PUB FAC AND IMPROV
89		367331	PUB FAC AND IMPROV
89		10000	PUB FAC AND IMPROV
89		2000	PUB FAC AND IMPROV
85	MASON	354169	PUB FAC AND IMPROV
85		20031	PUB FAC AND IMPROV
84	MONTGOMERY	1450	HOUSING
84		23315	HOUSING
84		22868	HOUSING
84		40300	HOUSING
84		213675	HOUSING
84		34120	PLANNING
84		28391	HOUSING
84		1880	PLANNING
89	MOUNT HOPE	473333	PUB FAC AND IMPROV
89		26667	PUB FAC AND IMPROV
87	MULLENS	283925	PUB FAC AND IMPROV
89		96750	PUB FAC AND IMPROV
89		19250	PUB FAC AND IMPROV
87		16000	PUB FAC AND IMPROV
89		9000	PUB FAC AND IMPROV
84	NEWBURG	6000	PUB FAC AND IMPROV
89	NEW MARTINSVILLE	21450	PUB FAC AND IMPROV
89		50872	PUB FAC AND IMPROV
89		26950	PUB FAC AND IMPROV
89		12000	PUB FAC AND IMPROV
89		5238	PUB FAC AND IMPROV

FY	CITYNAME	AMOUNT	PURPOSE
88	NUTTER FORT	45000	HOUSING
89		90000	HOUSING
88		5000	HOUSING
89		10000	HOUSING
84	OAK HILL	429618	PUB FAC AND IMPROV
89		83500	PUB FAC AND IMPROV
84		78982	PUB FAC AND IMPROV
84		400	PUB FAC AND IMPROV
88	OAKVALE	16373	HOUSING
88		1725	PUB FAC AND IMPROV
89	OCEANA	20000	PUB FAC AND IMPROV
84		388600	PUB FAC AND IMPROV
89		278687	PUB FAC AND IMPROV
84		80100	PUB FAC AND IMPROV
89		147200	PUB FAC AND IMPROV
84		31300	PUB FAC AND IMPROV
89		16230	PUB FAC AND IMPROV
86	PAW PAW	196400	ECONOM DEVELOP
86		252579	PUB FAC AND IMPROV
86		500	PUB FAC AND IMPROV
86		3600	ECONOM DEVELOP
87	PENNSBORO	359624	PUB FAC AND IMPROV
87		20371	PUB FAC AND IMPROV
85	PETERSBURG	363250	PUB FAC AND IMPROV
85		2283	PUB FAC AND IMPROV
85		9467	PUB FAC AND IMPROV
87	PHILIPPI	540100	ECONOM DEVELOP
87		9900	ECONOM DEVELOP
84	PIEDMONT	37000	PLANNING
84		3000	PLANNING
85	POCA	280065	PUB FAC AND IMPROV
86		320075	PUB FAC AND IMPROV
85		65333	PUB FAC AND IMPROV
86		74667	PUB FAC AND IMPROV
85		4601	PUB FAC AND IMPROV
86		5259	PUB FAC AND IMPROV
89	POINT PLEASANT	155000	PUB FAC AND IMPROV
89		37500	PUB FAC AND IMPROV
89		7500	PUB FAC AND IMPROV
87	PRINCETON	35800	PLANNING

FY	CITYNAME	AMOUNT	PURPOSE
84	RAVENSWOOD	187698	PUB FAC AND IMPROV
85		310131	PUB FAC AND IMPROV
84		7950	PUB FAC AND IMPROV
85		13620	PUB FAC AND IMPROV
87		37460	PLANNING
84		4352	PUB FAC AND IMPROV
85		8839	PUB FAC AND IMPROV
89		228050	PUB FAC AND IMPROV
89		39440	PUB FAC AND IMPROV
89		8700	PUB FAC AND IMPROV
88	RHODELL	252	PUB FAC AND IMPROV
88		92013	PUB FAC AND IMPROV
88		18669	PUB FAC AND IMPROV
88		9431	PUB FAC AND IMPROV
83	RICHWOOD	234377	PUB FAC AND IMPROV
83		22900	PUB FAC AND IMPROV
83		8200	PUB FAC AND IMPROV
89	RIPLEY	137000	PUB FAC AND IMPROV
89	RIVESVILLE	132000	PUB FAC AND IMPROV
85		97472	PUB FAC AND IMPROV
89		23000	PUB FAC AND IMPROV
85		10800	PUB FAC AND IMPROV
89		17000	PUB FAC AND IMPROV
89	RONCEVERTE	47250	PUB FAC AND IMPROV
85		2575	PUB FAC AND IMPROV
85		74381	PUB FAC AND IMPROV
85		108044	PUB FAC AND IMPROV
89		100000	PUB FAC AND IMPROV
89		47250	PUB FAC AND IMPROV
85		6648	PUB FAC AND IMPROV
89		5500	PUB FAC AND IMPROV
89	ST. ALBANS	488000	PUB FAC AND IMPROV
89		12000	PUB FAC AND IMPROV
89	SPENCER	45893	PUB FAC AND IMPROV
89		51598	PUB FAC AND IMPROV
89		129483	PUB FAC AND IMPROV
89		3026	PUB FAC AND IMPROV
85	STONEWOOD	7500	PUB FAC AND IMPROV
85		192408	PUB FAC AND IMPROV
83		166841	PUB FAC AND IMPROV
83		14000	PUB FAC AND IMPROV
85		14000	PUB FAC AND IMPROV
83		149153	HOUSING
83		20006	PUB FAC AND IMPROV
85		15000	PUB FAC AND IMPROV

FY	CITYNAME	AMOUNT	PURPOSE
88	UNION	102500	PUB FAC AND IMPROV
89		147859	PUB FAC AND IMPROV
88		10000	PUB FAC AND IMPROV
85	WAYNE	5440	PUB FAC AND IMPROV
86		5440	PUB FAC AND IMPROV
85		201031	PUB FAC A5D IMPROV
86		192830	PUB FAC AND IMPROV
85		31029	PUB FAC AND IMPROV
86		31029	PUB FAC AND IMPROV
85		12500	PUB FAC AND IMPROV
86		12500	PUB FAC AND IMPROV
87	WELCH	131338	PUB FAC AND IMPROV
88		143859	PUB FAC AND IMPROV
87		12500	PUB FAC AND IMPROV
87		6163	PUB FAC AND IMPROV
88		6141	PUB FAC AND IMPROV
84	WEST HAMLIN	95000	PUB FAC AND IMPROV
84		5000	PUB FAC AND IMPROV
87	WEST LIBERTY	159294	PUB FAC AND IMPROV
87		14554	PUB FAC AND IMPROV
87		4250	PUB FAC AND IMPROV
85	WEST MILFORD	23226	PUB FAC AND IMPROV
85		105010	PUB FAC AND IMPROV
85		15900	PUB FAC AND IMPROV
85		11000	PUB FAC AND IMPROV
83	WESTON	242017	PUB FAC AND IMPROV
83		46563	PUB FAC AND IMPROV
83		94482	HOUSING
83		23938	PUB FAC AND IMPROV
86	WHITE SULPHUR SPRING	374695	PUB FAC AND IMPROV
87		374695	PUB FAC AND IMPROV
86		305	PUB FAC AND IMPROV
87		305	PUB FAC AND IMPROV
85	WILLIAMSTOWN	275393	PUB FAC AND IMPROV
85		38346	PUB FAC AND IMPROV
85		5859	PUB FAC AND IMPROV
89	WINFIELD	80000	PUB FAC AND IMPROV
89		17870	PUB FAC AND IMPROV
89		10500	PUB FAC AND IMPROV
86	BARBOUR COUNTY	187540	PUB FAC AND IMPROV
87		312860	PUB FAC AND IMPROV
86		12460	PUB FAC AND IMPROV
87		20790	PUB FAC AND IMPROV

FY	CITYNAME	AMOUNT	PURPOSE
89	BOONE COUNTY	290764	PUB FAC AND IMPROV
89		147000	PUB FAC AND IMPROV
89		16500	PUB FAC AND IMPROV
83	BROOKE COUNTY	3500	PUB FAC AND IMPROV
83		73000	PUB FAC AND IMPROV
84		321301	PUB FAC A5D IMPROV
83		1500	PUB FAC AND IMPROV
83		940	PUB FAC AND IMPROV
84		26199	PUB FAC AND IMPROV
89	CABELL COUNTY	20000	PUB FAC AND IMPROV
84		2379	PUB FAC AND IMPROV
84		394243	PUB FAC AND IMPROV
84		18326	PUB FAC AND IMPROV
89		231200	PUB FAC AND IMPROV
84		57114	PUB FAC AND IMPROV
89		99120	PUB FAC AND IMPROV
84		25438	PUB FAC AND IMPROV
89		13250	PUB FAC AND IMPROV
82	CALHOUN COUNTY	164472	PUB FAC AND IMPROV
82		74023	PUB FAC AND IMPROV
82		11505	PUB FAC AND IMPROV
89	FAYETTE COUNTY	173000	PUB FAC AND IMPROV
89		344090	PUB FAC AND IMPROV
89		103000	PUB FAC AND IMPROV
89		15000	PUB FAC AND IMPROV
89	GILMER COUNTY	283178	PUB FAC AND IMPROV
89		53458	PUB FAC AND IMPROV
89		13364	PUB FAC AND IMPROV
84	HANCOCK COUNTY	8334	PUB FAC AND IMPROV
84		159191	PUB FAC AND IMPROV
84		18981	PUB FAC AND IMPROV
84		3881	PUB FAC AND IMPROV
89	HARDY COUNTY	214095	PUB FAC AND IMPROV
89		12846	PUB FAC AND IMPROV
89		9359	PUB FAC AND IMPROV
83	HARRISON COUNTY	145051	PUB FAC AND IMPROV
85		73412	PUB FAC AND IMPROV
86		72969	PUB FAC AND IMPROV
89		362805	PUB FAC AND IMPROV
83		17000	PUB FAC AND IMPROV
85		8776	PUB FAC AND IMPROV
86		8724	PUB FAC AND IMPROV
83		142770	HOUSING
86		152912	HOUSING
83		31179	HOUSING
85		8080	PUB FAC AND IMPROV
86		7088	HOUSING
86		8032	PUB FAC AND IMPROV
89		17105	PUB FAC AND IMPROV

FY	CITYNAME	AMOUNT	PURPOSE
89	JACKSON COUNTY	196356	PUB FAC AND IMPROV
89		3644	PUB FAC AND IMPROV
89	KANAWHA COUNTY	293042	PUB FAC AND IMPROV
85	LEWIS COUNTY	539810	PUB FAC AND IMPROV
89	LINCOLN COUNTY	463333	PUB FAC AND IMPROV
89		36667	PUB FAC AND IMPROV
89	LOGAN COUNTY	12667	PUB FAC AND IMPROV
89		393333	PUB FAC AND IMPROV
89		90667	PUB FAC AND IMPROV
89		3333	PUB FAC AND IMPROV
82	MCDOWELL COUNTY	5056	PUB FAC AND IMPROV
82		178334	PUB FAC AND IMPROV
82		58502	PUB FAC AND IMPROV
82		8108	PUB FAC AND IMPROV
85	MARION COUNTY	243405	PUB FAC AND IMPROV
86		243405	PUB FAC AND IMPROV
85		28787	PUB FAC AND IMPROV
86		28787	PUB FAC AND IMPROV
85		12588	PUB FAC AND IMPROV
86		12588	PUB FAC AND IMPROV
88	MARSHALL COUNTY	438930	PUB FAC AND IMPROV
88		26370	PUB FAC AND IMPROV
87	MASON COUNTY	110876	PUB FAC AND IMPROV
87		11845	PUB FAC AND IMPROV
87	MERCER COUNTY	169285	PUB FAC AND IMPROV
88		325096	PUB FAC AND IMPROV
87		5136	PUB FAC AND IMPROV
88		9864	PUB FAC AND IMPROV
85	MINERAL COUNTY	156900	PUB FAC AND IMPROV
85		12600	PUB FAC AND IMPROV
85		9180	PUB FAC AND IMPROV
89	MINGO COUNTY	5000	PUB FAC AND IMPROV
84		620981	PUB FAC AND IMPROV
84		81591	PUB FAC AND IMPROV
89		191458	PUB FAC AND IMPROV
89		76500	PUB FAC AND IMPROV
84		47429	PUB FAC AND IMPROV
89		14000	PUB FAC AND IMPROV

FY	CITYNAME	AMOUNT	PURPOSE
89	MONONGALIA COUNTY	191075	PUB FAC AND IMPROV
89		39300	PUB FAC AND IMPROV
89		12500	PUB FAC AND IMPROV
89	PLEASANTS COUNTY	466667	PUB FAC AND IMPROV
89		33333	PUB FAC AND IMPROV
84	PUTNAM COUNTY	459462	PUB FAC AND IMPROV
88		210000	PUB FAC AND IMPROV
84		2000	PUB FAC AND IMPROV
88		40000	PUB FAC AND IMPROV
84		15238	PUB FAC AND IMPROV
89	RALEIGH COUNTY	313000	PUB FAC AND IMPROV
85	RITCHIE COUNTY	212500	PUB FAC AND IMPROV
89		230868	PUB FAC AND IMPROV
85		90478	PUB FAC AND IMPROV
85		10742	PUB FAC AND IMPROV
85		11197	PUB FAC AND IMPROV
85		12500	PUB FAC AND IMPROV
89	TUCKER COUNTY	37060	PLANNING
89		2940	PLANNING
89	WAYNE COUNTY	41177	PUB FAC AND IMPROV
89		25400	PUB FAC AND IMPROV
89		6450	PUB FAC AND IMPROV
84	WIRT COUNTY	217000	PUB FAC AND IMPROV
84		17263	PUB FAC AND IMPROV
88	WOOD COUNTY	243333	PUB FAC AND IMPROV
89		321134	PUB FAC AND IMPROV
89		165533	PUB FAC AND IMPROV
88		6667	PUB FAC AND IMPROV
89		13333	PUB FAC AND IMPROV
88	WYOMING COUNTY	138000	PUB FAC AND IMPROV
86		374959	PUB FAC AND IMPROV
88		12800	PUB FAC AND IMPROV
87		398420	PUB FAC AND IMPROV
88		388120	PUB FAC AND IMPROV
89		400200	PUB FAC AND IMPROV

CONCLUSION OF HEARINGS

Senator **MIKULSKI**. This concludes our hearings scheduled for fiscal year 1992. This subcommittee will stand in recess subject to the call of the Chair. We thank you for this spirited exchange.

[Whereupon, at 3:45 p.m., Wednesday, June 5, the hearings were concluded and the subcommittee was recessed, to reconvene subject to the call of the Chair.]

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